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Your Networking Ally

Indice Temático

Secciones:

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Security

Device Quick Finder/Key Features

Product Category	Business Scale	Model	
Next Generation Unified Security Gateway— Extreme Series	Ultra-high performance Next Generation Firewall (NGFW) for medium to large businesses	USG1900 USG1100	
Next Generation Unified Security Gateway— Advanced Series	Mid-range Next Generation Firewall (NGFW) for small and medium-sized businesses	USG310 USG210 USG110	
Next Generation Unified Security Gateway— Performance Series	Desktop Next Generation Firewall (NGFW) for small businesses	USG60W USG60 USG40W USG40	
VPN Firewall	Reliable remote access solution for Medium-sized businesses	USG2200-VPN	
VPN Firewall	Reliable remote access solution for small- and medium-sized businesses	ZyWALL 1100 ZyWALL 310 ZyWALL 110	
VPN Firewall	Reliable remote access solution for small businesses & branch offices	USG20-VPN USG20W-VPN	

Service Quick Finder/Key Features

Category	Service Portal	Service Name	
Online Service Platform	https://portal.myzyxel.com/	myZyxel	
Security Information Website	http://onesecurity.zyxel.com/	OneSecurity	

Software Quick Finder/Key Features

Product Category	Compatible Security Appliances	Model	
Security Service	NG USG Extreme Series/ Advanced Series/ Performance Series ZyWALL Series	Anti-Virus	
Security Service	USG Series VPN Firewall Series	Anti-Spam	
Security Service	USG Series VPN Firewall Series	Content Filtering 2.0	
Security Service	NG USG Extreme Series/ Advanced Series/ Performance Series ZyWALL Series	Intrusion Detection and Prevention (IDP)	
Security Service	NG USG Extreme Series/ Advanced Series/ Performance Series ZyWALL Series	Application Patrol	
Connectivity Service	• 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	SecuExtender Software	
Connectivity Service	NG USG Extreme Series/ Advanced Series/ Performance Series ZyWALL Series	AP Controller	
Connectivity Service	NG USG Extreme Series/ Advanced Series ZyWALL Series	Device High Availability Pro	
Connectivity Service	Next-Gen Unified Security Gateway (USG) Series and ZyWALL VPN Firewall Series with firmware version ZLD V4.10 or above	SSO Agent	
Vertical Solution Service	USG 110/210/310/1100/1900 ZyWALL 110/310/1100	Hotspot Management	
Security Appliance Management	Next-Gen Unified Security Gateway (USG) Series and VPN Firewall Series with firmware version ZLD 4.13 or above	Cloud CNM SecuManager	
Security Analytics Service	NG USG Series (ZLD4.25) APs via APC support ZyWALL ATP (ZLD4.30) ZyWALL VPN (ZLD4.30)	Cloud CNM SecuReporter	

Product Category	Model	Key Features
Security Service	Anti-Virus	• 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 real time protection with no file size limitation • High detection rate without sacrificing performance • Cloud-optimized database supported
Security Service	Anti-Spam	• Transparent mail interception via SMTP and POP3 protocols • Zero-hour virus outbreak protection • Sender-based IP reputation filter • Blacklist and whitelist support
Security Service	Content Filtering 2.0	• 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
Security Service	Intrusion Detection and Prevention (IDP)	• Routing and transparent (bridge) mode • Detects and alerts you of suspicious or malicious activity • Customizable protection profile • Customized signatures supported
Security Service	Application Patrol	• Granular control over the most important applications • Identifies and controls application behavior • Application bandwidth management • Supports user authentication • Real-time statistics and reports
Connectivity Service	SecuExtender Software	• Providing solutions of both SSL VPN and IPSec VPN remote access • Enhanced layered security incorporating Zyxel security appliances • Easy and intelligent installation reducing IT effort
Connectivity Service	AP Controller	• Integrated AP controller as central management to provide flexible deployment options • AP auto discovery and auto provisioning
Connectivity Service	Device High Availability Pro	• 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
Connectivity Service	SSO 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
Vertical Solution Service	Hotspot Management	• High speed Internet access • Tier of service • Log record for regulatory compliance • Premium security control • Various Network access control
Security Appliance Management	Cloud CNM SecuManager	• 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
Security Analytics Service	Cloud CNM SecuReporter	• Cloud-based real-time monitoring and alerts • Effective event correlation and user behavior analytics • Intuitive dashboard and customizable report * Available in Q3, 2017

VPN Firewall

Model	Remote Offices/Small Businesses (SBs)	
	USG20-VPN	USG20W-VPN
Hardware Specifications		
10/100/1000 Mbps RJ-45 ports	1 x WAN, 1 x SFP, 4 x LAN/DMZ	1 x WAN, 1 x SFP, 4 x LAN/DMZ
USB ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	-	-
Fanless	-	-
System Capacity & Performance[*1]		
SPI firewall throughput (Mbps)[*2]	350	350
VPN throughput (Mbps)[*3]	90	90
Concurrent devices (default/max.)[*4]	64	64
Max. TCP concurrent sessions[*5]	20,000	20,000
Max. concurrent IPSec VPN tunnels[*6]	10	10
Concurrent SSL VPN users (default/max.)[*7]	5/15	5/15
Customizable zones	Yes	Yes
IPv6 support	Yes	Yes
WLAN Management		
AP Controller (APC) support	-	-
Managed AP number (default/max.)[*8]	-	-
Key Software Features		
Firewall	Yes	Yes
Virtual Private Network (VPN)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)
Bandwidth management	Yes	Yes
Logging and monitoring	Yes	Yes
SSL (HTTPS) inspection	-	-
Unified security policy	Yes	Yes
EZ mode	Yes	Yes
Cloud Helper	Yes	Yes
Device HA	-	-
License Service		
Anti-Virus (AV)	-	-
Intrusion Detection and Prevention (IDP) & Application Patrol	-	-
Anti-Spam	Yes	Yes
Content Filtering (CF2.0)[*9]	Yes	Yes
Device HA Pro	-	-
Hospot Management	-	-
Power Requirements		
Power input	12 V DC, 2.0 A max.	12 V DC, 2.0 A max.
Max. power consumption (watt)	12.00	18.0
Heat dissipation (BTU/hr)	40.92	61.38
Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	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.)	1.04/2.29	1.14/2.51 (Antenna included)
Packing	Dimensions (WxDxH)(mm/in.)	276 x 185 x 98/10.87 x 7.28 x 3.86	276 x 185 x 98/10.87 x 7.28 x 3.86
	Weight (kg/lb.)	1.41/3.11	1.50/3.31
Included accessories	• Power adapter • RJ-45 - RS-232 cable for console connection	• Power adapter • RJ-45 - RS-232 cable for console connection • Antenna
Environmental Specifications		
Operating environment	Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
	Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment	Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
	Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	44,000	44,000
Certifications		
EMC	FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI	FCC Part 15 (Class B), IC, CE EMC (Class B), RCM, BSMI
Safety	BSMI, UL	BSMI, UL

Note:
*: This matrix with firmware ZLD 4.25 or later.
*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: With Zyxel Device Upgrade License, this is the recommend maximum number of concurrent logged-in devices.
*5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway.
*7: With Zyxel SSL VPN License, this is the recommend maximum number of concurrent VPN users.
*8: With Zyxel AP Controller License, this is the recommend maximum AP capacity of concurrent users.
*9: SafeSearch function in CF2.0 need to enable SSL Inspection firstly and not for small business models.

Next Generation Unified Security Gateway

Model	Performance Series			
	USG60W	**USG60**	**USG40W**	**USG40**
Hardware Specifications				
10/100/1000 Mbps 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-mountable	Yes	Yes	-	-
Fanless	Yes	Yes	Yes	Yes
System Capacity & Performance[*1]				
SPI firewall throughput (Mbps)[*2]	1,000	1,000	400	400
VPN throughput (Mbps)[*3]	180	180	100	100
IDP throughput (Mbps)[*4]	120	120	55	55
AV throughput (Mbps)[*4]	90	90	50	50
UTM throughput (AV and IDP)[*4]	90	90	50	50
Concurrent devices (default/max.)[*5]	128	128	64	64
Max. TCP concurrent sessions[*6]	40,000	40,000	20,000	20,000
Max. concurrent IPsec VPN tunnels[*7]	40	40	20	20
Concurrent SSL VPN users (default/max.)[*8]	5/20	5/20	5/15	5/15
Customizable zones	Yes	Yes	Yes	Yes
IPv6 support	Yes	Yes	Yes	Yes
VLAN interface	16	16	8	8
WLAN Management				
AP Controller (APC) support	Yes	Yes	Yes	Yes
Managed AP number (default/max.)[*9]	2/18	2/18	2/18	2/18
Key Software Features				
Firewall	Yes	Yes	Yes	Yes
Virtual Private Network (VPN)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)
Bandwidth management	Yes	Yes	Yes	Yes
Logging and monitoring	Yes	Yes	Yes	Yes
SSL (HTTPS) inspection	-	-	-	-
Unified security policy	Yes	Yes	Yes	Yes
EZ mode	Yes	Yes	Yes	Yes
Cloud Helper	Yes	Yes	Yes	Yes
Device HA	-	-	-	-
License Service				
Anti-Virus (AV)	Yes	Yes	Yes	Yes
Intrusion Detection and Prevention (IDP) & Application Patrol	Yes	Yes	Yes	Yes
Anti-Spam	Yes	Yes	Yes	Yes
Content Filtering (CF2.0)[*10]	Yes	Yes	Yes	Yes
Device HA Pro	-	-	-	-
Hostpot Management	-	-	-	-
Power Requirements				
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.
Max. power consumption (watt)	28.0	19.0	17.0	14.0
Heat dissipation (BTU/hr)	95.54	64.83	58.01	47.77
Physical Specifications				
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
Item — Weight (kg/lb.)	1.46/3.23	1.25/2.76	0.91/2	0.89/1.96
Packing — Dimensions (WxDxH)(mm/in.)	427 x 247 x 73/ 16.81 x 9.72 x 2.87	394 x 240 x 101/ 15.51 x 9.45 x 3.98	381 x 216 x 79/ 15.00 x 8.50 x 3.11	381 x 216 x 79/ 15.00 x 8.50 x 3.11
Packing — Weight (kg/lb.)	2.23 (W/O breacket) 2.42 (w breacket)	2.25/4.96	1.63/3.59	1.57/3.46
Included accessories	• 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	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	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), BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

*: This matrix with firmware ZLD 4.25 or later.
*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: AV and IDP throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.
*5: With Zyxel Device Upgrade License, this is the recommend maximum number of concurrent logged-in devices.
*6: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
*7: Including Gateway-to-Gateway and Client-to-Gateway.
*8: With Zyxel SSL VPN License, this is the recommend maximum number of concurrent VPN users.
*9: With Zyxel AP Controller License, this is the recommend maximum AP capacity of concurrent users.
*10: SafeSearch function in CF2.0 need to enable SSL Inspection firstly and not for small business models.

Security Feature Matrix

Next Generation Unified Security Gateway

Model	Extreme Series		Advanced Series		
	USG1900	USG1100	USG310	USG210	USG110
Hardware Specifications					
10/100/1000 Mbps RJ-45 ports	8 (configurable)	8 (configurable)	8 (configurable)	4 x LAN/DMZ, 2 x WAN, 1 x OPT	4 x LAN/DMZ, 2 x WAN, 1 x OPT
USB ports	2	2	2	2	2
Console port	Yes (DB9)	Yes (DB9)	Yes (DB9)	Yes (DB9)	Yes (DB9)
Rack-mountable	Yes	Yes	Yes	Yes	Yes
Fanless	-	-	-	-	-
System Capacity & Performance[1]					
SPI firewall throughput (Mbps)[2]	7,000	6,000	5,000	1,900	1,600
VPN throughput (Mbps)[3]	900	800	650	500	400
IDP throughput (Mbps)[4]	650	550	450	350	300
AV throughput (Mbps)[4]	600	500	400	300	250
UTM throughput (AV and IDP)[4]	600	500	400	300	250
Concurrent devices (default/max.)[5]	1,500/2,000	800/1,500	500/800	200/300	200/300
Max. TCP concurrent sessions[6]	500,000	500,000	200,000	80,000	60,000
Max. concurrent IPsec VPN tunnels[7]	2,000	1,000	300	200	100
Concurrent SSL VPN users (default/max.)[8]	250/750	250/500	50/150	35/150	25/150
Customizable zones	Yes	Yes	Yes	Yes	Yes
IPv6 support	Yes	Yes	Yes	Yes	Yes
VLAN interface	128	128	64	32	16
WLAN Management					
AP Controller (APC) support	Yes	Yes	Yes	Yes	Yes
Managed AP number (default/max.)[9]	2/66	2/66	2/34	2/34	2/34
Key Software Features					
Firewall	Yes	Yes	Yes	Yes	Yes
Virtual Private Network (VPN)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)
Bandwidth management	Yes	Yes	Yes	Yes	Yes
Logging and monitoring	Yes	Yes	Yes	Yes	Yes
SSL (HTTPS) inspection	Yes	Yes	Yes	Yes	Yes
Unified security policy	Yes	Yes	Yes	Yes	Yes
EZ mode	-	-	-	-	-
Cloud Helper	Yes	Yes	Yes	Yes	Yes
Device HA	Yes	Yes	Yes	Yes	Yes
License Service					
Anti-Virus (AV)	Yes	Yes	Yes	Yes	Yes
Intrusion Detection and Prevention (IDP) & Application Patrol	Yes	Yes	Yes	Yes	Yes
Anti-Spam	Yes	Yes	Yes	Yes	Yes
Content Filtering (CF2.0)[10]	Yes	Yes	Yes	Yes	Yes
Device HA Pro	Yes	Yes	Yes	Yes	Yes
Hostpot Management	Yes	Yes	Yes	Yes	Yes
Power Requirements					
Power input	100 - 240 V AC, 50/60 Hz, 1.3 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.	100 - 240 V AC, 50/60 Hz, 1.3 A max.	12 V DC, 3.33 A max.	12 V DC, 3.33 A max.
Max. power consumption (watt)	58.5	58.5	58.5	37.0	37.0
Heat dissipation (BTU/hr)	199.61	199.61	199.61	126.25	126.25
Physical Specifications					
Item — 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
Packing — Dimensions (WxDxH)(mm/in.)	519 x 392 x 163/ 20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42	351 x 149 x 243/ 13.82 x 5.87 x 9.57	351 x 149 x 243/ 13.82 x 5.87 x 9.57
Packing — 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 accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power adapter • Power cord • Rack mounting kit	• Power adapter • Power cord • Rack mounting kit
Environmental Specifications					
Operating environment — Temperature	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F	0°C to 40°C/ 32°F to 104°F
Operating environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment — Temperature	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F	-30°C to 70°C/ -22°F to 158°F
Storage environment — Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	560,811.5	560,811.5	560,811.5	787,109.3	787,109.3
Certifications					
EMC	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

*: This matrix with firmware ZLD 4.25 or later.
*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: AV and IDP throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.
*5: With Zyxel Device Upgrade License, this is the recommend maximum number of concurrent logged-in devices.

*6: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
*7: Including Gateway-to-Gateway and Client-to-Gateway.
*8: With Zyxel SSL VPN License, this is the recommend maximum number of concurrent VPN users.
*9: With Zyxel AP Controller License, this is the recommend maximum AP capacity of concurrent AP users.
*10: SafeSearch function in CF2.0 need to enable SSL Inspection firstly and not for small business models.

Product/Service Compatibility List

Next Generation Unified Security Gateway

Product	Extreme Series		Advanced Series			Performance Series	
	USG1900	USG1100	USG310	USG210	USG110	USG60/60W	USG40/40W
Security							
Anti-Virus	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years
IDP and Application Patrol	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years
Content Filtering 2.0	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years
Anti-Spam	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years	1 year/2 years
VPN							
SSL VPN Tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10 tunnels	Add 5/10 tunnels
SSL VPN Client[*1]	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients
IPSec VPN Client	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients
Connectivity							
Concourrent Device Upgrade	100/300 nodes	100/300 nodes	100/300 nodes	100 nodes	100 nodes	-	-
Hotspot Management[*2]	1 year/ one-time	1 year/ one-time	1 year/ one-time	1 year/ one-time	1 year/ one-time	-	-
Managed Aps	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs
Device HA Pro	One-time	One-time	One-time	One-time	One-time	-	-
Vantage Report	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices

VPN Firewall

Product	Medium-sized Businesses	Small- and Medium-sized Businesses		Remote Offices/ Small Businesses	
	USG2200-VPN	ZyWALL 1100	ZyWALL 310	ZyWALL 110	USG20-VPN USG20W-VPN
VPN					
SSL VPN Tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10/50 tunnels	Add 5/10 tunnels
SSL VPN Client[*1]	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients	For 1/5/10 clients
IPSec VPN Client	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients	For 1/5/10/50 clients
Connectivity					
Concourrent Device Upgrade	100/300 nodes	100/300 nodes	100/300 nodes	100 nodes	-
Hotspot Management[*2]	1 year/one-time	1 year/one-time	1 year/one-time	1 year/one-time	-
Managed Aps	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	Add 4/8 APs	-
Device HA Pro	One-time	One-time	One-time	One-time	-
Vantage Report	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices	For 1/5/25/100 devices

*1: Support OS: MAC OS 10.7 or later
*2: Hotspot Management supports for ZyWALL 310, ZyWALL 1100 and USG2200-VPN in firmware ZLD4.20 or later; for ZyWALL 110 in firmware ZLD4.25 or later.

Access Point Compatibility List

Product	NWA5120 Series	NWA5000 Series	NWA3000-N Series	WAC6500 Series
	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

ZyXEL

UAG4100/2100
Unified Access Gateway

High quality Internet service is no longer optional for hospitality businesses. It is a guest expectation and a key to customer satisfaction. Yet, providing satisfactory Internet access is not simply a matter of installing Ethernet cables and wireless access points where guests need them. Hospitality businesses need to address the issues of access management, regulation compliance, and providing sufficient bandwidth for an exploding amount of wireless mobile devices.

The Zyxel UAG4100/2100 Unified Access Gateway is a next-generation, all-in-one wireless hotspot/access gateway designed to fulfill the hospitality challenges of both today and tomorrow. In addition to account management, billing, and data retention capabilities, the UAG4100/2100 offers premium features—like 802.11 a/b/g/n dual-radio Wi-Fi and a built-in WLAN controller—to deliver better scalability, capacity, and performance to fulfill tomorrow's guest access demands.

Benefits

Increasing customer loyalty

Virtually everyone today has at least one wireless mobile device, like smartphones, tablets, and laptops computers. Yet, yesterday's hotspot gateways can no longer handle the exploding amount of wireless mobile devices that need Wi-Fi access. To satisfy this fast-growing demand, hospitality businesses need a solution that can provide greater Wi-Fi bandwidth, capacity and performance.

EEE 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 (UAG4100)

Integrated account generator, Web-based authentication portal and billing system

Supports external RADIUS servers

Per account bandwidth management

SP350E Service Gateway Printer enables one-click account and billing generation

Built-in WLAN controller

Facilitates compliance with data retention regulations

Datasheet UAG4100/2100

Specifications

Model	UAG4100	UAG2100
Product photo		
Hardware Specifications		
RJ-45 ports	4 x LAN, 1 x WAN (10/100/1000 Mbps)(10/100/1000 Mbps)	4 x LAN, 1 x WAN (10/100/1000 Mbps)
USB ports	2	2
Ticket printer support	Yes (SP350E)	Yes (SP350E)
System Capacity & Performance[*1]		
Routing throughput (Mbps)[*2]	200	150
Concurrent logins (default/max.)	200/300	100/200
Max. concurrent sessions[*3]	40,000	20,000
DHCP pool size	4,096	4,096
Built-in account generator — Static accounts	150	50
Built-in account generator — Dynamic accounts	2,000	1,000
WLAN Management		
Built-in WLAN controller	Yes	Yes
Managed AP number (default/max.)	8/16	0/8
SSID	8	8
Wireless Specifications		
Standard compliance	802.11 a/b/g/n	802.11 a/b/g/n
Wireless frequency	Concurrent 2.4 & 5 GHz	Concurrent 2.4 & 5 GHz
Radio	2	2
SSID number	16	16
Maximum transmit power (Max. total channel) — US (FCC) 2.4 GHz	24.3 dBm, 2 antennas	24.3 dBm, 2 antennas
Maximum transmit power (Max. total channel) — US (FCC) 5 GHz	25.8 dBm, 2 antennas	25.8 dBm, 2 antennas
Maximum transmit power (Max. total channel) — EU (ETSI) 2.4 GHz	18.6 dBm (EIRP), 2 antennas	18.6 dBm (EIRP), 2 antennas
Maximum transmit power (Max. total channel) — EU (ETSI) 5 GHz	28.4 dBm (EIRP), 2 antennas	28.4 dBm (EIRP), 2 antennas
No. of antenna	2.4 GHz: 2T2R MIMO 5 GHz: 2T2R MIMO (Detachable, SMA-R)	2.4 GHz: 2T2R MIMO 5 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 802.11n: 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 802.11a: 6, 9, 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 ≤ -87 dBm; 54 Mbps ≤ -74 dBm HT20 ≤ -71 dBm; HT40 ≤ -68 dBm	11 Mbps ≤ -87 dBm; 54 Mbps ≤ -74 dBm HT20 ≤ -71 dBm; HT40 ≤ -68 dBm
Receive sensitivity — 5 GHz	54 Mbps ≤ -75 dBm HT20, MCS15 ≤ -71 dBm; HT40, MCS15 ≤ -69 dBm	54 Mbps ≤ -75 dBm HT20, MCS15 ≤ -71 dBm; HT40, MCS15 ≤ -69 dBm

Model	UAG4100	UAG2100
AAA & Billing		
Web-based authentication	Yes	Yes
RADIUS client	Yes	Yes
Time-to-finish/Accumulation billing modes	Yes/Yes	Yes/Yes
Customizable billing profiles	Yes	Yes
Account operator	Yes	Yes
User agreement	Yes	Yes
SMS ticketing	Yes	License
Security		
SPI firewall	Yes	Yes
Layer 2 isolation	Yes	Yes
VPN pass-through	Yes	Yes
802.1x support	Yes	Yes
Management		
Syslog	Yes	Yes
SNMP	Yes	Yes
Limited user sessions	Yes	Yes
Pass-through address	Yes (IP)	Yes (IP)
Walled garden	Yes	Yes
Customizable login page	Yes	Yes
Customizable user agreement page	Yes	Yes
Power Requirements		
Power input	12 V DC, 3 A max.	12 V DC, 3 A max.
Max. power consumption (watt)	28	28
Physical Specifications		
Item	Dimensions (WxDxH) (mm/in.)	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
	Weight (kg/lb.)	1.46/3.22	1.46/3.22
Packing	Dimensions (WxDxH) (mm/in.)	416 x 247 x 71/16.38 x 9.72 x 2.80	416 x 247 x 71/16.38 x 9.72 x 2.80
	Weight (kg/lb.)	2.3/5.07	2.3/5.07
Included accessories	• Power adapter • Rack mounting kit • Antenna	• Power adapter • Rack mounting kit • Antenna
Environmental Specifications		
Operating environment	Temperature	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)
Storage environment	Temperature	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)	497,644	497,644
Certifications		
EMC	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI
Safety	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI

Note:
*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.

Features

Networking
- Universal Plug and Play (UPnP)
- IP Plug and Play (iPnP)
- NAT/PAT
- Static routing and policy routing
- DHCP client/server/relay
- HTTP proxy support
- SMTP redirection
- VPN 1-to-1 mapping
- VPN pass-through
- WAN client: static, DHCP, PPPoE, PPTP
- Tagged VLAN (802.1Q)
- DDNS

Security
- 64/128-bit WEP data encryption
- WPA-PSK TKIP data encryption (Wi-Fi Certified)
- WPA2-PSK AES data encryption (Wi-Fi Certified)
- WPA/WPA2-Enterprise
- Stateful packet inspection firewall
- L2 isolation
- User-aware security policy
- SSL login page
- Session limit
- IP pass-through (white list)

AAA & Billing
- Web-based authentication
- User agreement login

- External RADIUS support
- Secondary RADIUS server support
- Built-in billing system
  - Time-to-finish accounting mode
  - Accumulation accounting mode
- 10 customizable billing profiles
- Built-in account generator
- Multiple logins with pre-configured accounts
- Bandwidth management (per account)
- Credit card billing via PayPal
- Thermal Printer supper (SP350E)
- SMS ticketing support with ViaNett*

* UAG2100 SMS ticketing supports by license

Marketing
- Advertisement link
- Walled garden
- Login page redirection
- Portal page
- Customizable login page
- Customizable information window
- Customizable user agreement page

System Management
- Administrator access: WAN and LAN
- Web Management (HTTP/HTTPS)
- Secure administrator IP address
- SNMP v2c (MIB-II)
- Configuration backup and restoration

- Role-based administration (Admin, guest operator)
- Command line interface (console/web console/SSH)

Monitoring and Reporting
- Email log
- Syslog: account, IP, MAC, traffic & protocol (data retention)
- Session list
- Account list
- Billing report
- DHCP client list

WLAN Management
- Zyxel AP Controller (APC) 1.97 compliant
- Client RSSI threshold to prevent sticky clients
- IEEE 802.1x authentication
- Captive portal Web authentication
- Customizable captive portal page
- RADIUS authentication
- Wi-Fi Multimedia (WMM) wireless QoS
- CAPWAP discovery protocol

Accessories

Model	Feature
SP350E **Service Gateway** **Printer**	- 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.)

ZYXEL

UAG5100

Unified Access Gateway

Providing Internet access in public areas is not the same as providing Internet access in homes or offices. Public Internet users come and go in masses, which makes access management and preventing bandwidth abuse especially challenging. The anonymity of public users makes it especially challenging to retain user data for legal purposes. Without the right Internet access solution, there is no way for public areas or venues like hotels to provide high-quality but controlled Internet access, let alone generate revenue from Internet services.

The Zyxel UAG5100 is a high-performance access gateway designed to manage guest access and generate revenue in public Internet access networks. Supporting up to 800 concurrent logins, the UAG5100 is perfect for medium-sized venues like hotels, convention centers or public libraries. It facilitates compliance with data retention laws, and ensures high-quality, always online Internet access with dual-WAN and per account bandwidth management capabilities. It also reduces hardware expenditure for BYOD deployments with a WLAN controller built-in.

Benefits

Deploy with confidence

The Zyxel UAG5100 has the capacity to provide public Internet access to hundreds of users in medium-sized venues like hotels, libraries and convention centers. It supports 500 concurrent logins by default, and up to 800 via license upgrade. With dual-WAN support and per account bandwidth management, the UAG5100 maximizes Internet uptime and optimizes access quality to keep customers and visitors satisfied.

- Supports 500 concurrent logins by default and up to 800 via license upgrade

- Integrated account generator, Web-based authentication portal and billing system

- Supports up to ten (10) SP350E Service Gateway Printers and SMS ticketing with ViaNett protocol

- Per account bandwidth management

- Dual-WAN load-balancing, failover and fall back support

- Built-in WLAN controller (supports 16 APs by default and up to 32 APs via license upgrade)
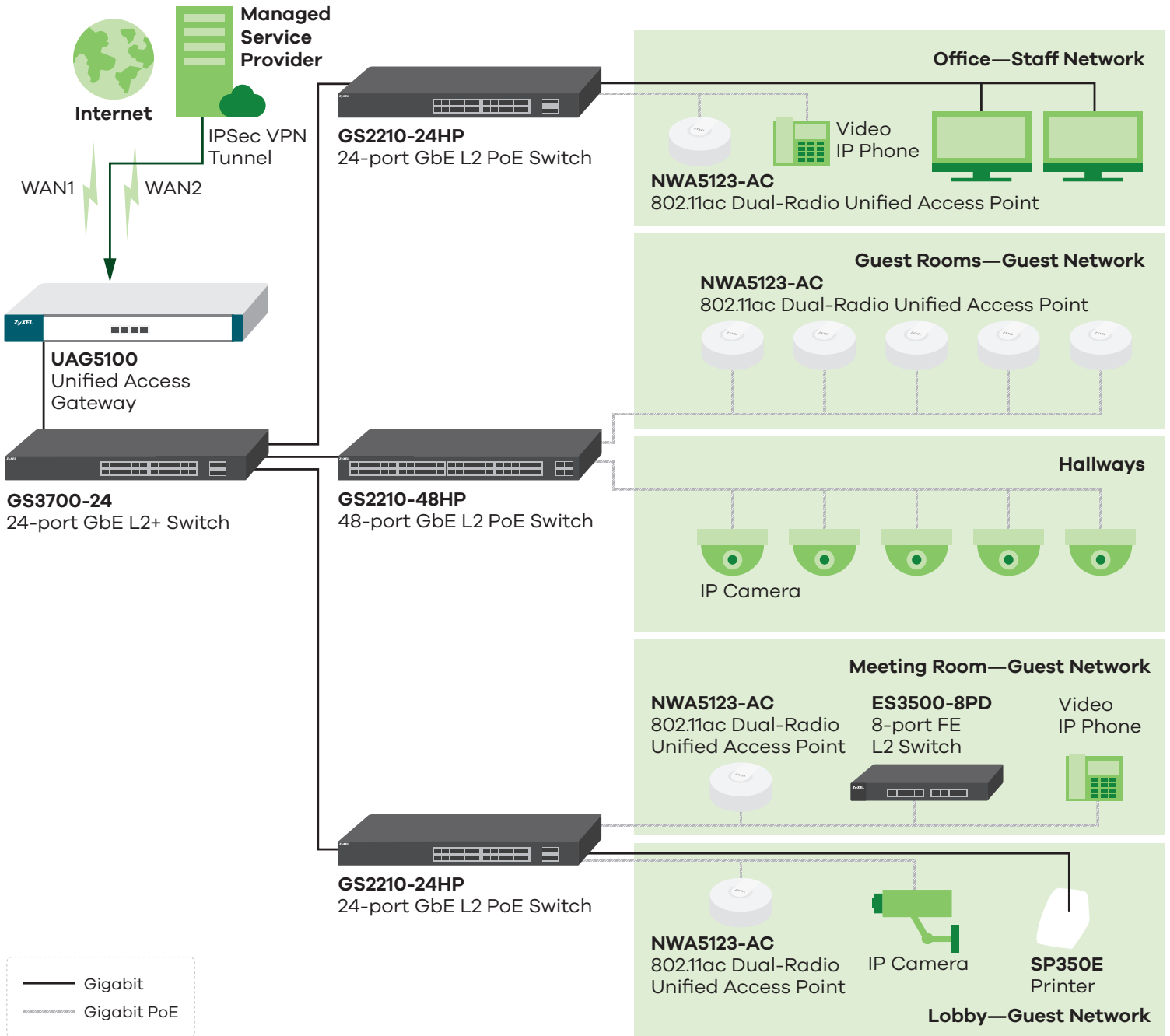
- Facilitates compliance with data retention regulations

- Provides ten (10) IPSec VPN tunnels for remote management by MSPs

Key Applications

Hotel Guest Access

- Users can connect two Ethernet WAN links to the UAG5100 to get higher uplink bandwidth with load balancing or WAN backup with failover
- The integrated WLAN controller enables users to centrally manage up to 32 APs with the UAG5100

- The SP350E printer can be installed at the reception desk to enable staff members to generate guest accounts with one click
- Managed service providers can remotely manage and service the UAG5100 with an IPSec VPN tunnel

Internet

Managed Service Provider

IPSec VPN Tunnel

WAN1 WAN2

UAG5100
Unified Access Gateway

GS3700-24
24-port GbE L2+ Switch

GS2210-24HP
24-port GbE L2 PoE Switch

GS2210-48HP
48-port GbE L2 PoE Switch

GS2210-24HP
24-port GbE L2 PoE Switch

Office—Staff Network

NWA5123-AC
802.11ac Dual-Radio Unified Access Point

Video IP Phone

Guest Rooms—Guest Network

NWA5123-AC
802.11ac Dual-Radio Unified Access Point

Hallways

IP Camera

Meeting Room—Guest Network

NWA5123-AC
802.11ac Dual-Radio Unified Access Point

ES3500-8PD
8-port FE L2 Switch

Video IP Phone

NWA5123-AC
802.11ac Dual-Radio Unified Access Point

IP Camera

SP350E
Printer

Lobby—Guest Network

Gigabit
Gigabit PoE

Specifications

Model Name	UAG5100
Product name	Unified Acces Gateway

Hardware Specifications	
RJ-45 ports	3 x LAN, 2 x WAN (10/100/1000 Mbps)
USB ports	2
Ticket printer support	Yes (SP350E)

System Capacity & Performance[1]		
Routing throughput (Mbps)[2]		250
Concurrent logins (default/max.)		500/800
Max. concurrent sessions[3]		80,000
DHCP pool size		4,096
Built-in account generator	**Static accounts**	300
	Dynamic accounts	4,000

WLAN Management	
Built-in WLAN controller	Yes
Managed AP number (default/max.)	16/32
SSID	-

WAN	
WAN load-balancing/failover	Yes/Yes

AAA & Billing	
Web-based authentication	Yes
RADIUS client	Yes
Time-to-finish/Accumulation billing modes	Yes/Yes
Customizable billing profiles	Yes
Account operator	Yes
User agreement	Yes
SMS ticketing	Yes

Security	
SPI firewall	Yes
Layer 2 isolation	Yes
VPN pass-through	Yes
IPSec VPN	Yes (10 tunnels)
802.1x support	Yes

Management	
Syslog	Yes
SNMP	Yes
Limited user sessions	Yes
Pass-through address	Yes (IP)
Walled garden	Yes
Customizable login page	Yes
Customizable user agreement page	Yes

Power Requirements	
Power input	802.3at PoE Plus input; 100 - 240 V AC, 50/60 Hz, 0.6 A max.
Max. power consumption (watt)	25

Model Name	UAG5100		
Physical Specifications			
Item	Dimensions (WxDxH)(mm/in.)	382 x 205 x 44/15.04 x 8.07 x 1.73	
	Weight (kg/lb.)	2.36/5.20	
Packing	Dimensions (WxDxH)(mm/in.)	444 x 295 x 152/17.48 x 11.61 x 5.98	
	Weight (kg/lb.)	3.7/8.16	
Included accessories	• Power cord • Rack mounting kit		
Environmental Specifications			
Operating environment	Temperature	0°C to 45°C/32°F to 113°F	
	Humidity	10% to 90% (non-condensing)	
Storage environment	Temperature	-40°C to 70°C/-40°F to 158°F	
	Humidity	10% to 90% (non-condensing)	
MTBF (hr)	71,032		
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: 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.

Features Set

Networking

- Dual-WAN load balancing, failover and fallback
- Universal Plug and Play (UPnP)
- IP Plug and Play (iPnP)
- NAT/PAT
- Static routing and policy routing
- DHCP client/server/relay
- HTTP proxy support
- SMTP redirection
- VPN 1-to-1 mapping
- VPN pass-through
- WAN client: static, DHCP, PPPoE, PPTP
- Tagged VLAN (802.1Q)
- DDNS

Security

- Stateful packet inspection firewall
- 10-channel IPSec VPN support (site-to-site)
- L2 isolation
- User-aware security policy
- Session limit
- IP pass-through (white list)
- Content Filter
- APP Portal

AAA & Billing

- Web-based authentication
- User agreement login

- External RADIUS support
- Secondary RADIUS server support
- Built-in billing system:
  - Time-to-finish accounting mode
  - Accumulation accounting mode
- 10 customizable billing profiles
- Built-in account generator
- Multiple logins with pre-configured accounts
- Bandwidth management (per account)
- Credit card billing via PayPal
- Thermal printer supper (up to 10)
- SMS ticketing support with ViaNett

Marketing

- Advertisement link
- Walled garden
- Login page redirection
- Portal page
- Customizable login page
- Customizable information window
- Customizable user agreement page

System Management

- Administrator access: WAN and LAN
- Web management (HTTP/HTTPS)
- Secure administrator IP address
- SNMP v2c (MIB-II)
- Configuration backup and restoration

- Role-based administration (Admin, guest operator)
- Command line interface (console/web console/SSH)

Monitoring and Reporting

- Email log
- Syslog: account, IP, MAC, traffic & protocol (data retention)
- Session list
- Account list
- Billing report
- DHCP client list
- Printer IP discovery support

WLAN Management

- Zyxel AP Controller (APC) 1.97 compliant
- Client RSSI threshold to prevent sticky clients
- IEEE 802.1x authentication
- Captive portal Web authentication
- Customizable captive portal page
- RADIUS authentication
- Wi-Fi Multimedia (WMM) wireless QoS
- CAPWAP discovery protocol

ZYXEL

UAG50
Unified Access Gateway

It's quite troublesome to deploy networks in smaller public areas such as coffee shops, bistros or bars. Providing Internet access is always a necessary but tiring job to meet customer expectations, however venue owners must complete complex Internet framework setup tasks to manage access and prevent bandwidth abuse.

The Zyxel UAG50 Unified Access Gateway is a brand-new all-in-one access hotspot that combines a wireless access gateway and a built-in thermal ticket printer. The device is designed to fulfill the needs of small venue owners with limited resources to provide the best services and quality with less setting and management effort.

Benefits

New All-in-One hotspot with the best TCO

The Zyxel UAG50 is a brand-new All-in-One wireless hotspot/access gateway that integrates AP, router, AAA gateway and thermal printer functions, and it generates user accounts and passwords for Internet access with just a press on the button to relieve receptionists from complicated operations. With the Zyxel UAG50, multi-device deployment, integration and maintenance routines are no longer headaches for venue owners.

Generating revenue

The Zyxel Unified Access Gateway is designed with advanced billing, user authentication and access control features that help venue owners service guest accounts, block unauthorized access and generate revenue with their Internet services. It gives owners the flexibility to offer Wi-Fi access as a free service, a tiered service (premium when a purchase is made) or a paid service, depending on the preferred decision for the venue.

- Built-in thermal printer

- Supports 100 concurrent logins

- 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

Specifications

Model	UAG50

Hardware Specifications	
10/100 Mbps RJ-45 ports	1 x USB LAN, 1 x WAN
USB ports	1
Ticket printer support	Yes (All-in-One)

System Capacity & Performance[1]		
Routing throughput (Mbps)[2]		> 85Mbps (TCP upstream)
Concurrent Device Upgrade (default/max.)		100/100
Max. concurrent sessions[3]		16,385
DHCP pool size		253
Built-in account generator	Static accounts	–
	Dynamic accounts	256

Wireless Specifications		
Standard compliance		802.11 b/g/n
Wireless frequency		2.4 GHz
Radio		1
SSID number		8
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz	18 dBm, 2 antennas
	EU (ETSI) 2.4 GHz	18 dBm (EIRP), 2 antennas
No. of antenna		2.4 GHz: 2T2R MIMO (Detachable, SMA-R)
Antenna gain		2 dBi
Data rate		802.11 b/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	11b: -71 dBm @10% PER; 11g: -71 dBm @10% PER; 11n: -85 dBm @10% PER

AAA & Billing	
Web-based authentication	Yes
RADIUS client	Yes
Time-to-finish/Accumulation billing modes	Yes/Yes
Customizable billing profiles	Yes
Account operator	Yes
User agreement	Yes
SMS ticketing	–

Security	
Firewall	Yes
Layer 2 isolation	Yes
VPN pass-through	Yes
IPSec VPN	–
802.1x support	Yes

Management	
Syslog	Yes
SNMP	Yes (read only)
Limited user sessions	Yes
Pass-through address	Yes
Walled garden	Yes
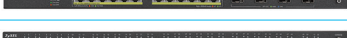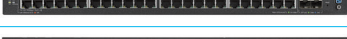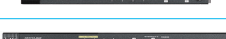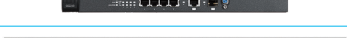
Switch

Fixed-Port Switch Quick Finder

Switch Class	Series	Performance	Model	
L3 Managed	4600 Series	Gigabit Ethernet with 10G Uplink	XGS4600-32	
			XGS4600-32F	
	4500 Series	Gigabit Ethernet with 10G Uplink	XGS-4528F	
L2 Managed	3900 Series	10 Gigabit Ethernet with 40GbE Uplink	XS3900-48F	
	3700 Series	10 Gigabit Ethernet	XS3700-24	
		Gigabit Ethernet with 10G Uplink	XGS3700-24	
			XGS3700-24HP	
			XGS3700-48	
			XGS3700-48HP	
		Gigabit Ethernet	GS3700-24	
			GS3700-24HP	
			GS3700-48	
			GS3700-48HP	
	3500 Series	Fast Ethernet	ES3500-8PD	
			ES3500-24	
	2210 Series	Gigabit Ethernet with 10G Uplink	XGS2210-28	
			XGS2210-28HP	
			XGS2210-52	
			XGS2210-52HP	
		Gigabit Ethernet	GS2210-8	
			GS2210-8HP	
			GS2210-24	
			GS2210-24HP	
			GS2210-24LP	
			GS2210-48	
			GS2210-48HP	

Key Features

Model	Ports	Key Features
XS1920-12	10-port 10GBASE-T 2 x 10GbE combo ports	• 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 fiber • Zyxel One Network experience enables simple network management and maintenance • Dual firmware images and configuration ensure network availability • Future-proofed with IPv6 support • Streamlined network initialization and troubleshooting by supporting ZON utility and Zyxel Smart Connect
GS1920-24	24-port 1000BASE-T 4 x GbE combo ports	• 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 • Streamlined network initialization and troubleshooting by supporting ZON utility and Zyxel Smart Connect
GS1920-24HP	24-port 1000BASE-T PoE 4 x GbE combo ports	
GS1920-48	44-port 1000BASE-T 2 x GbE SFP slots 4 x GbE combo ports	
GS1920-48HP	48-port 1000BASE-T PoE 2 x GbE SFP slots 4 x GbE combo ports	
GS1900-8	8-port 1000BASE-T	• 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) • Streamlined network initialization by supporting ZON utility
GS1900-8HP	8-port 1000BASE-T PoE	
GS1900-10HP	8-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1900-16	16-port 1000BASE-T	
GS1900-24E	24-port 1000BASE-T	
GS1900-24	24-port 1000BASE-T 2 x GbE SFP slots	
GS1900-24HP	24-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1900-48	48-port 1000BASE-T 2 x GbE SFP slots	
GS1900-48HP	24-port 1000BASE-T 24-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1200-5HP	1-port 1000BASE-T 4-port 1000BASE-T PoE	• Four Gigabit high-power PoE+ ports • 60 watt total PoE budget • 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
GS1200-8HP	4-port 1000BASE-T 4-port 1000BASE-T PoE	
GS1100-8HP	4-port 1000BASE-T 4-port 1000BASE-T PoE	• 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)
GS1100-10HP	8-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1100-16	16-port 1000BASE-T	
GS1100-24	24-port 1000BASE-T 2 x GbE SFP slots	
GS1100-24E	24-port 1000BASE-T	
ES1100-8P	4-port 10/100BASE-T 4-port 10/100BASE-T PoE	• Non-blocking, wire-speed transmission • Auto MDI/MDI-X support • IEEE 802.3az draft Energy Efficient Ethernet compliant (ES1100-16/24/24E) • Fanless design for silent operations (ES1100-8P/16/24E/24) • IEEE 802.3x flow control supported • IEEE 802.1p CoS supported
ES1100-16P	8-port 10/100BASE-T 8-port 10/100BASE-T PoE	
ES1100-16	16-port 10/100BASE-T	
ES1100-24E	24-port 10/100BASE-T	
ES1100-24	24-port 10/100BASE-T	
RGS200-12P	8 x 1000BASE-T 4 x GbE SFP slots	• Wide-ranging operating temperature design from -40°C to 75°C • Fanless design and compact mechanism with IP30 standard • Redundant ring technology with quick failover in less than 20 ms • Dual power inputs (12 V - 58 V DC) • Full PoE+ support and high PoE power budget up to 240 W
RGS100-5P	4 x 1000BASE-T 1 x GbE SFP slot	• Wide-ranging operating temperature design from -40°C to 75°C • Fanless design and compact mechanism with IP30 standard • All PoE ports support PoE+ and high PoE power budget up to 120 W • Dual power inputs (12 V - 58 V DC)

LAN Switches Feature Matrix

Model	Switch 4600 Seires		Switch 4500 Series	Switch 3900 Series	Switch 3700 Series			
	XGS4600-32	XGS4600-32F	XGS-4528F	XS3900-48F	XS3700-24	XGS3700-24	XGS3700-24HP	XGS3700-48
Switch class	Layer 3	Layer 3	Layer 3	Layer 2	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)
Hardware								
Total port count	32	32	28	52	24	28	28	52
100 Mbit RJ-45 ports	-	-	-	-	-	-	-	-
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	8	-	-	-
1 Gigabit RJ-45 ports	24	-	-	-	-	24	-	48
1 Gigabit RJ-45 PoE ports	-	-	-	-	-	-	24	-
1 Gigabit SFP slots	-	24	-	-	-	-	-	-
10 Gigabit combo ports (RJ-45/SFP+)	-	-	-	-	4	-	-	-
Gigabit combo ports (RJ-45/SFP)	4	4	24	-	-	-	-	-
10 Gigabit CX4 ports	-	-	2	-	-	-	-	-
10 Gigabit module	-	-	1	-	-	-	-	-
10 Gigabit SFP+ slots	4	4	-	48	12	4	4	4
40-Gigabit QSFP+	-	-	-	4	-	-	-	-
Backplane bandwidth (Gbps)	136	136	144	1,280	480	128	128	176
Forwarding rate (Mpps)	101.1	101.1	107.1	952.4	357.14	95	95	131
MAC addresses table	32 K	32 K	8 K	128 K	16 K	16 K	16 K	16 K
Management								
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI/Web GUI	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	Yes
Out-of-band management port	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing/Redundancy								
OSPF	Yes	Yes	Yes	-	-	-	-	-
RIP v1, v2	Yes	Yes	Yes	-	-	-	-	-
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
Redundant power support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quality of Service								
Priority queues	8	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/Yes/Yes	Yes/Yes/Yes
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	Yes	Yes	Yes	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CPU protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Green Features								
Fanless	-	-	-	-	-	-	-	-
IEEE Energy-Efficient-Ethernet	Yes	Yes	-	-	Yes	Yes	Yes	Yes
Others								
MTBF (hr)	860,611	794,270	125,667	156,472	446,035	280,000	220,000	250,000
Heat dissipation (BTU/hr)	160.27	204.94	289.85	1,024.32	Single PSU: 487.971 Dual PSU: 549.01	Single PSU: 57.8 Dual PSU: 70.3	Single PSU: 534.3 Dual PSU: 1,098.5	Single PSU: 74.7 Dual PSU: 87.6
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	441 x 270 x 44/ 17.36 x 10.63 x 1.73	441 x 270 x 44/ 17.36 x 10.63 x 1.73	438 x 310 x 44.5/ 17.24 x 12.20 x 1.75	440 x 455 x 43/ 17.32 x 17.91 x 1.69	440 x 438 x 44/ 17.32 x 17.24 x 1.73	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57
Weight (kg/lb.)	3.96/8.73	4.21/9.28	4.9/10.80	10.2/22.49	7.392/16.3	7.27/16.03	7.55/16.64	7.57/16.69
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Console cable • Rack mounting kit • CX-4 cable	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit

Model	Switch 3700 Series					Switch 3500 Series	
	XGS3700-48HP	GS3700-24	GS3700-24HP	GS3700-48	GS3700-48HP	ES3500-24	ES3500-8PD
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	Layer 2
Hardware							
Total port count	52	28	28	52	52	28	10
100 Mbit RJ-45 ports	-	-	-	-	-	24	8
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	
100 Mbit SFP slots	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	-	24	-	48	-	-	-
1 Gigabit RJ-45 PoE ports	48	-	24	-	48	-	-
1 Gigabit SFP slots	-	4	4	4	4	-	-
10 Gigabit combo ports (RJ-45/SFP+)		-	-	-	-	-	-
Gigabit combo ports (RJ-45/SFP)	-	-	-	-	-	4	2
10 Gigabit CX4 ports	-	-	-	-	-	-	-
10 Gigabit module	-	-	-	-	-	-	-
10 Gigabit SFP+ slots	4	-	-	-	-	-	-
40-Gigabit QSFP+	-	-	-	-	-	-	-
Backplane bandwidth (Gbps)	176	56	56	104	104	12.8	5.6
Forwarding rate (Mpps)	131	42	42	77	77	9.6	4.17
MAC addresses table	16 K	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 management port	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing/Redundancy							
OSPF	-	-	-	-	-	-	-
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing	Yes	Yes	Yes	Yes	Yes	-	-
VRRP	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
Redundant power support	Yes	Yes	Yes	Yes	Yes	-	-
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/Yes/Yes
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	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	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CPU protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Green Features							
Fanless	-	-	-	-	-	Yes	Yes
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others							
MTBF (hr)	200,000	280,000	220,000	250,000	200,000	133,798	485,196
Heat dissipation (BTU/hr)	Single PSU: 1,898.3 Dual PSU: 3,823.6	Single PSU: 173.9 Dual PSU: 214.5	Single PSU: 1,794.7 Dual PSU: 3,707.7	Single PSU: 242.5 Dual PSU: 279.3	Single PSU: 1,862.9 Dual PSU: 3,789.5	48	32.4
Physical Specifications							
Dimensions (WxDxH)(mm/in.)	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 200 x 44.5/ 17.32 x 7.87 x 1.75	215.5 x 123 x 42/ 8.48 x 4.84 x 1.65
Weight (kg/lb.)	8.02/17.68	7.24/15.96	7.44/16.4	7.55/16.64	8/17.64	2.6/5.73	1.04/2.29
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Power adapter • Rack mounting kit

Model	Switch 2210 Series							
	XGS2210-28	XGS2210-28HP	XGS2210-52	XGS2210-52HP	GS2210-8	GS2210-8HP	GS2210-24	GS2210-24HP
Switch class	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
Hardware								
Total port count	28	28	52	52	10	10	28	28
100 Mbit RJ-45 ports	-	-	-	-	-	-	-	-
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	24	-	48	-	8	-	24	-
1 Gigabit RJ-45 PoE ports	-	24	-	48	-	8	-	24
1 Gigabit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit combo ports (RJ-45/SFP+)	-	-	-	-	-	-	-	-
Gigabit combo ports (RJ-45/SFP)	-	-	-	-	2	2	4	4
10 Gigabit CX4 ports	-	-	-	-	-	-	-	-
10 Gigabit module	-	-	-	-	-	-	-	-
10 Gigabit SFP+ slots	4	4	4	4	-	-	-	-
40-Gigabit QSFP+	-	-	-	-	-	-	-	-
Backplane bandwidth (Gbps)	128	128	176	176	20	20	56	56
Forwarding rate (Mpps)	95.2	95.2	130.9	130.9	15	15	41.7	41.7
MAC addresses table	16 K	16 K	16 K	16 K	16 K	16 K	16 K	16 K
Management								
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI/Web GUI	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	Yes
Out-of-band management port	-	-	-	-	-	-	-	-
Routing/Redundancy								
OSPF	-	-	-	-	-	-	-	-
RIP v1, v2	-	-	-	-	-	-	-	-
Static IP routing	Yes	Yes	Yes	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	Yes/Yes/Yes
Redundant power support	-	-	-	-	-	-	-	-
Quality of Service								
Priority queues	8	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/Yes/Yes	Yes/Yes/Yes
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	-	-	-	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow	Yes	Yes	Yes	Yes	-	-	-	-
CPU protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Green Features								
Fanless	Yes	-	-	-	Yes	-	Yes	-
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others								
MTBF (hr)	831,699	560,726	970,594	500,904	1,382,030	1,155,719	616,247	949,326
Heat dissipation (BTU/hr)	68.2	1,483.4	153.3	1,688	41.94	784.30	92.75	1625.55
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	441 x 270 x 45/ 17.36 x 10.63 x 1.77	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	441 x 270 x 45/ 17.36 x 10.63 x 1.77	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	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
Weight (kg/lb.)	3.7/8.16	5.06/11.16	3.86/8.51	5.38/11.86	1.425/3.14	2.703/5.96	2.26/4.98	4.83/10.63
Included accessories	• Power cord • Rack-mount kits	• Power cord • Rack-mount kits	• Power cord • Rack-mount kits	• Power cord • Rack-mount kits	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit

Model	Switch 2210 Series			Switch 1920 Series				
	GS2210-24LP	GS2210-48	GS2210-48HP	XS1920-12	GS1920-24	GS1920-24HP	GS1920-48	GS1920-48HP
Switch class	Layer 2	Layer 2	Layer 2	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Hardware								
Total port count	28	50	50	12	28	28	50	50
100 Mbit RJ-45 ports	-	-	-	-	-	-	-	-
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	10	-	-	-	-
1 Gigabit RJ-45 ports	-	44	-	-	24	-	44	-
1 Gigabit RJ-45 PoE ports	24	-	48	-	-	24	-	48
1 Gigabit SFP slots	-	2	2	-	-	-	2	2
10 Gigabit combo ports (RJ-45/SFP+)	-	-	-	2	-	-	-	-
Gigabit combo ports (RJ-45/SFP)	4	4	4	-	4	4	4	4
10 Gigabit CX4 ports	-	-	-	-	-	-	-	-
10 Gigabit module	-	-	-	-	-	-	-	-
10 Gigabit SFP+ slots	-	-	-	-	-	-	-	-
40-Gigabit QSFP+	-	-	-	-	-	-	-	-
Backplane bandwidth (Gbps)	56	100	100	240	56	56	100	100
Forwarding rate (Mpps)	41.7	74	74	178.6	41.7	41.7	74	74
MAC addresses table	16 K	16 K	16 K	16 K	16 K	16 K	16 K	16 K
Management								
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI/Web GUI	Yes/Yes	Yes/Yes	Yes/Yes	-/Yes	-/Yes	-/Yes	-/Yes	-/Yes
iStacking (single IP management)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Out-of-band management port	-	-	-	-	-	-	-	-
Routing/Redundancy								
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	Yes/Yes/Yes
Redundant power support	-	-	-	-	-	-	-	-
Quality of Service								
Priority queues	8	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/Yes/Yes	Yes/Yes/Yes
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	-	-	-	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	Yes	Yes	Yes	Yes/-	Yes/-	Yes/-	Yes/-	Yes/-
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow	-	-	-	-	-	-	-	-
CPU protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Green Features								
Fanless	-	-	-	-	Yes	-	-	-
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others								
MTBF (hr)	616,247	631,451	337,690	839,625	616,247	949,326	631,452	337,690
Heat dissipation (BTU/hr)	864.09	136.8	1,572.01	320.89	88.32	1,548.14	128.90	1,643.62
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	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	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	441 x 131 x 44/ 17.36 x 5.16 x 1.73	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.)	4.40/9.7	3.04/6.7	5.13/11.3	4.205/9.27	2.17/4.78	4.79/10.56	3.04/6.7	5.13/11.3
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit

Model	GS1900-8	GS1900-8HP	GS1900-10HP	GS1900-16	GS1900-24E	GS1900-24	GS1900-24HP
	Switch 1900 Series						
Switch class	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Hardware							
Total port count	8	8	10	16	24	26	26
100 Mbit RJ-45 ports	-	-	-	-	-	-	-
100 MbitRJ-45 PoE ports	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	8	-	-	16	24	24	-
1 Gigabit RJ-45 PoE ports	-	8	8	-	-	-	24
1 Gigabit SFP slots	-	-	2	-	-	2	2
10 Gigabit 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)	16	16	20	32	48	52	52
Forwarding rate (Mpps)	11.9	11.9	14.9	23.8	35.7	39	39
MAC addresses table	8 K	8 K	8 K	8 K	8 K	8 K	8 K
Management							
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI/Web GUI	-/Yes	-/Yes	-/Yes	-/Yes	-/Yes	-/Yes	-/Yes
iStacking (single IP management)	-	-	-	-	-	-	-
Out-of-band management port	-	-	-	-	-	-	-
Routing/Redundancy							
OSPF	-	-	-	-	-	-	-
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing	-	-	-	-	-	-	-
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 (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	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	-	-	-	-	-	-	-
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	-	-	-	-	-	-	-
Sflow	-	-	-	-	-	-	-
CPU protection	-	-	-	-	-	-	-
Green Features							
Fanless	Yes	Yes	Yes	Yes	Yes	Yes	-
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others							
MTBF (hr)	862,561	926,199	801,113	843,668	804,714	432,673	318,142
Heat dissipation (BTU/hr)	21.14	48.763	65.47	35.81	51.49	55	787.71
Physical Specifications							
Dimensions (WxDxH)(mm/in.)	250 x 104 x 27/ 9.84 x 4.10 x 1.06	250 x 104 x 27/ 9.84 x 4.10 x 1.06	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
Weight (kg/lb.)	0.65/1.43	0.71/1.57	0.72/1.59	0.97/2.13	1.56/3.44	2.09/4.60	4.03/8.88
Included accessories	• Power adapter • Wall mounting kit	• Power cord • Power adapter • Wall mounting kit	• Power cord • Power adapter • Wall mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit

Model	Switch 1900 Series		Switch 1200 Series		Switch 1100 Series			
	GS1900-48	GS1900-48HP	GS1200-5HP	GS1200-8HP	GS1100-8HP	GS1100-10HP	GS1100-16	GS1100-24
Switch class	Smart Managed	Smart Managed	Web Managed	Web Managed	Unmanaged	Unmanaged	Unmanaged	Unmanaged
Hardware								
Total port count	50	50	5	8	8	10	16	26
100 Mbit RJ-45 ports	–	–	–	–	–	–	–	–
100 Mbit RJ-45 PoE ports	–	–	–	–	–	–	–	–
100 Mbit SFP slots	–	–	–	–	–	–	–	–
10 Gigabit RJ-45 ports	–	–	–	–	–	–	–	–
1 Gigabit RJ-45 ports	48	24	1	4	4	–	16	24
1 Gigabit RJ-45 PoE ports	–	24	4	4	4	8	–	–
1 Gigabit SFP slots	2	2	–	–	–	2	–	2
10 Gigabit 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)	100	100	10	16	16	20	32	52
Forwarding rate (Mpps)	74	74	14.88	14.88	11.9	14.9	23.8	38.7
MAC addresses table	8 K	8 K	4k	4k	8 K	8 K	8 K	8 K
Management								
IPv6 management	Yes	Yes	Yes	Yes	–	–	–	–
CLI/Web GUI	–/Yes	–/Yes	–/Yes	–/Yes	–	–	–	–
iStacking (single IP management)	–	–	–	–	–	–	–	–
Out-of-band management port	–	–	–	–	–	–	–	–
Routing/Redundancy								
OSPF	–	–	–	–	–	–	–	–
RIP v1, v2	–	–	–	–	–	–	–	–
Static IP routing	–	–	–	–	–	–	–	–
VRRP	–	–	–	–	–	–	–	–
Spanning Tree (STP/MSTP/RSTP)	Yes/Yes/Yes	Yes/Yes/Yes	–	–	–	–	–	–
Redundant power support	–	–	–	–	–	–	–	–
Quality of Service								
Priority queues	8	8	4	4	4	8	8	8
Data prioritization (SPQ/WRR/WFQ)	Yes/Yes/Yes	Yes/Yes/Yes	–	–	–	–	–	–
Guest VLAN	Yes	Yes	Yes	Yes	–	–	–	–
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	–	–	–	–
MVR	Yes	Yes	–	–	–	–	–	–
Jumbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	–	–	–	–	–	–	–	–
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	–	–	–	–	–	–	–	–
802.1X authentication	Yes	Yes	–	–	–	–	–	–
TACACS+/RADIUS	Yes	Yes	–	–	–	–	–	–
ACL security filter L2/L3/L4	–	–	–	–	–	–	–	–
Sflow	–	–	–	–	–	–	–	–
CPU protection	–	–	–	–	–	–	–	–
Green Features								
Fanless	–	–	–	–	Yes	Yes	Yes	Yes
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others								
MTBF (hr)	229,313	175,767	1,393,888	1,297,717	631,254	1,000,070	1,297,212	1,206,050
Heat dissipation (BTU/hr)	108.77	853	132.23	128.16	306.9	89	27.62	50.13
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	440 x 200 x 44/ 17.32 x 7.87 x 1.73	440 x 310 x 45/ 17.32 x 12.20 x 1.77	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
Weight (kg/lb.)	2.9/6.39	4.24/9.35	0.4/0.88	0.65/1.43	0.54/1.19	0.73/1.6	0.92/2.28	1.82/4.01
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord	• Power cord	• Power cord • Power adapter • Wall mount kit	• Power cord • Power adapter • Wall mount kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Rack mounting kit

Model	Switch 1100 Series						Rugged Switch Series	
	GS1100-24E	ES1100-8P	ES1100-16P	ES1100-16	ES1100-24	ES1100-24E	RGS200-12P	RGS100-5P
Switch class	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Managed	Unmanaged
Hardware								
Total port count	24	8	16	16	24	24	12	5
100 Mbit RJ-45 ports	-	4	8	16	24	24	-	-
100 Mbit RJ-45 PoE ports	-	4	8	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	24	-	-	-	-	-	-	-
1 Gigabit RJ-45 PoE ports	-	-	-	-	-	-	8	4
1 Gigabit SFP slots	-	-	-	-	-	-	4	1
10 Gigabit 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)	48	1.6	3.2	3.2	4.8	4.8	24	10
Forwarding rate (Mpps)	35.7	1.2	2.4	2.4	3.6	3.6	17.86	7.44
MAC addresses table	8 K	1 K	8 K	8 K	8 K	8 K	8 K	2 K
Management								
IPv6 management	-	-	-	-	-	-	Yes	-
CLI/Web GUI	-	-	-	-	-	-	Yes/Yes	-
iStacking (single IP management)	-	-	-	-	-	-	-	-
Out-of-band management port	-	-	-	-	-	-	-	-
Routing/Redundancy								
OSPF	-	-	-	-	-	-	-	-
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	8	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 forwarding	Yes	-	-	Yes	Yes	Yes	Yes	-
DVMRP	-	-	-	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	-	-	-	-	-	-	-	-
802.1X authentication	-	-	-	-	-	-	Yes	-
TACACS+/RADIUS	-	-	-	-	-	-	Yes	-
ACL security filter L2/L3/L4	-	-	-	-	-	-	-	-
Sflow	-	-	-	-	-	-	-	-
CPU protection	-	-	-	-	-	-	-	-
Green Features								
Fanless	Yes	Yes	-	Yes	Yes	Yes	Yes	Yes
IEEE Energy-Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	-	-
Others								
MTBF (hr)	929,704	164,603	75,888	322,400	295,895	100,833	568,430	568,430
Heat dissipation (BTU/hr)	49.10	232.22	499.57	8.53	13.30	13.30	869.55	426.25
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	267 x 162 x 42/ 10.51 x 6.38 x 1.65	262 x 184 x 41/ 10.31 x 7.24 x 1.61	262 x 184 x 41/ 10.31 x 7.24 x 1.61	216 x 133 x 42/ 8.50 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 1.65	77 x 127.3 x 154/ 3.03 x 5.01 x 6.06	29.1 x 107.3 x 139/ 1.15 x 4.22 x 5.47
Weight (kg/lb.)	1.53/3.37	1.4/3.09	1.7/3.75	0.77/1.70	1.35/2.98	1.28/2.82	1.45/3.2	0.5/1.1
Included accessories	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Wall mount kit • Rack mounting kit	• Wall mount kit • DIN-rail mounting kit	• Wall mount kit • DIN-rail mounting kit

Key Features

Model	Ports	Key Features
XS1920-12	10-port 10GBASE-T 2 x 10GbE combo ports	• 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 fiber • Zyxel One Network experience enables simple network management and maintenance • Dual firmware images and configuration ensure network availability • Future-proofed with IPv6 support • Streamlined network initialization and troubleshooting by supporting ZON utility and Zyxel Smart Connect
GS1920-24	24-port 1000BASE-T 4 x GbE combo ports	
GS1920-24HP	24-port 1000BASE-T PoE 4 x GbE combo ports	• 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
GS1920-48	44-port 1000BASE-T 2 x GbE SFP slots 4 x GbE combo ports	• Reliable network availability with Loop Guard, IPSG, and CPU protection • RADIUS, static MAC forwarding and 802.1X authentication-enhance network security • Streamlined network initialization and troubleshooting by supporting ZON utility and Zyxel Smart Connect
GS1920-48HP	48-port 1000BASE-T PoE 2 x GbE SFP slots 4 x GbE combo ports	
GS1900-8	8-port 1000BASE-T	
GS1900-8HP	8-port 1000BASE-T PoE	
GS1900-10HP	8-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1900-16	16-port 1000BASE-T	• Easy browser-based switch management • Quick and easy set up wizard
GS1900-24E	24-port 1000BASE-T	• Advanced network error prevention features (loop protection, dual images, storm control, DoS and SSL) • Fanless design (GS1900-8/8HP/10HP/16/24/24E)
GS1900-24	24-port 1000BASE-T 2 x GbE SFP slots	• Green Ethernet IEEE 802.3az support and intelligent Zyxel green features • High-power PoE support IEEE 802.3at (GS1900-8HP/10HP/24HP/48HP)
GS1900-24HP	24-port 1000BASE-T PoE 2 x GbE SFP slots	• Streamlined network initialization by supporting ZON utility
GS1900-48	48-port 1000BASE-T 2 x GbE SFP slots	
GS1900-48HP	24-port 1000BASE-T 24-port 1000BASE-T PoE 2 x GbE SFP slots	
GS1200-5HP	1-port 1000BASE-T 4-port 1000BASE-T PoE	• Four Gigabit high-power PoE+ ports • 60 watt total PoE budget • Intuitive Web management
GS1200-8HP	4-port 1000BASE-T 4-port 1000BASE-T PoE	• Quality of Service for better traffic control • Multicast IGMP snooping v1/v2 and v3 compatible for streaming applications • Virtual LAN for enhanced network security
GS1100-8HP	4-port 1000BASE-T 4-port 1000BASE-T PoE	
GS1100-10HP	8-port 1000BASE-T PoE 2 x GbE SFP slots	• Non-blocking, wire-speed transmission • Auto MDI/MDI-X support
GS1100-16	16-port 1000BASE-T	• IEEE 802.3az compliant • Fanless design for silent operation • IEEE 802.3x flow control supported
GS1100-24	24-port 1000BASE-T 2 x GbE SFP slots	• IEEE 802.1p CoS supported • Jumbo frame support (up to 9 K bytes)
GS1100-24E	24-port 1000BASE-T	
ES1100-8P	4-port 10/100BASE-T 4-port 10/100BASE-T PoE	
ES1100-16P	8-port 10/100BASE-T 8-port 10/100BASE-T PoE	• Non-blocking, wire-speed transmission • Auto MDI/MDI-X support
ES1100-16	16-port 10/100BASE-T	• IEEE 802.3az draft Energy Efficient Ethernet compliant (ES1100-16/24/24E) • Fanless design for silent operations (ES1100-8P/16/24E/24)
ES1100-24E	24-port 10/100BASE-T	• IEEE 802.3x flow control supported • IEEE 802.1p CoS supported
ES1100-24	24-port 10/100BASE-T	
RGS200-12P	8 x 1000BASE-T 4 x GbE SFP slots	• Wide-ranging operating temperature design from -40°C to 75°C • Fanless design and compact mechanism with IP30 standard • Redundant ring technology with quick failover in less than 20 ms • Dual power inputs (12 V - 58 V DC) • Full PoE+ support and high PoE power budget up to 240 W
RGS100-5P	4 x 1000BASE-T 1 x GbE SFP slot	• Wide-ranging operating temperature design from -40°C to 75°C • Fanless design and compact mechanism with IP30 standard • All PoE ports support PoE+ and high PoE power budget up to 120 W • Dual power inputs (12 V - 58 V DC)

LAN Switches Feature Matrix

Model	Switch 4600 Seires		Switch 4500 Series	Switch 3900 Series	Switch 3700 Series			
	XGS4600-32	XGS4600-32F	XGS-4528F	XS3900-48F	XS3700-24	XGS3700-24	XGS3700-24HP	XGS3700-48
Switch class	Layer 3	Layer 3	Layer 3	Layer 2	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)
Hardware								
Total port count	32	32	28	52	24	28	28	52
100 Mbit RJ-45 ports	-	-	-	-	-	-	-	-
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	8	-	-	-
1 Gigabit RJ-45 ports	24	-	-	-	-	24	-	48
1 Gigabit RJ-45 PoE ports	-	-	-	-	-	-	24	-
1 Gigabit SFP slots	-	24	-	-	-	-	-	-
10 Gigabit combo ports (RJ-45/SFP+)	-	-	-	-	4	-	-	-
Gigabit combo ports (RJ-45/SFP)	4	4	24	-	-	-	-	-
10 Gigabit CX4 ports	-	-	2	-	-	-	-	-
10 Gigabit module	-	-	1	-	-	-	-	-
10 Gigabit SFP+ slots	4	4	-	48	12	4	4	4
40-Gigabit QSFP+	-	-	-	4	-	-	-	-
Backplane bandwidth (Gbps)	136	136	144	1,280	480	128	128	176
Forwarding rate (Mpps)	101.1	101.1	107.1	952.4	357.14	95	95	131
MAC addresses table	32 K	32 K	8 K	128 K	16 K	16 K	16 K	16 K
Management								
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI/Web GUI	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	Yes
Out-of-band management port	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing/Redundancy								
OSPF	Yes	Yes	Yes	-	-	-	-	-
RIP v1, v2	Yes	Yes	Yes	-	-	-	-	-
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
Redundant power support	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quality of Service								
Priority queues	8	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/Yes/Yes	Yes/Yes/Yes
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping (v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	Yes	Yes	Yes	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security								
MAC freeze/ intrusion lock	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CPU protection	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Green Features								
Fanless	-	-	-	-	-	-	-	-
IEEE Energy-Efficient-Ethernet	Yes	Yes	-	-	Yes	Yes	Yes	Yes
Others								
MTBF (hr)	860,611	794,270	125,667	156,472	446,035	280,000	220,000	250,000
Heat dissipation (BTU/hr)	160.27	204.94	289.85	1,024.32	Single PSU: 487.971 Dual PSU: 549.01	Single PSU: 57.8 Dual PSU: 70.3	Single PSU: 534.3 Dual PSU: 1,098.5	Single PSU: 74.7 Dual PSU: 87.6
Physical Specifications								
Dimensions (WxDxH)(mm/in.)	441 x 270 x 44/ 17.36 x 10.63 x 1.73	441 x 270 x 44/ 17.36 x 10.63 x 1.73	438 x 310 x 44.5/ 17.24 x 12.20 x 1.75	440 x 455 x 43/ 17.32 x 17.91 x 1.69	440 x 438 x 44/ 17.32 x 17.24 x 1.73	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57
Weight (kg/lb.)	3.96/8.73	4.21/9.28	4.9/10.80	10.2/22.49	7.392/16.3	7.27/16.03	7.55/16.64	7.57/16.69
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Console cable • Rack mounting kit • CX-4 cable	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit

Accessories

10G Module

Product	EM-412	EM-422
Specifications	• 2-port CX4 module • Extended 10 GbE CX4 module for short distance deployment	• 2-slot XFP module • Extended 10 GbE XFP module for long distance deployment (Requires purchase of 10 GbE XFP transceivers)

Media Converter

Product	MC1000-SFP-FP
Specifications	• 1000BASE-T RJ-45 to Gigabit fiber • Fiber protection mechanism • 1 mini-GBIC SFP slot for flexible choice of SFP • Multimode and singlemode supported • Up to 80 km reach (depends on mini-GBIC SFP) • Max. power consumption: 9.6 watt
Dimensions (WxDxH)(mm/in.)	194 x 129 x 25/7.64 x 5.08 x 0.98

PoE Injector and Extender

Product	PoE12-HP
Specifications	• Install anywhere taking advantage of 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 cable
Dimensions (WxDxH)(mm/in.)	207 x 65 x 38.5/8.15 x 2.56 x 1.52

Power Module

Product	RPS300	RPS600-HP
Specifications	• Removable AC power module for GS3700-24, GS3700-48, XGS3700-24, XGS3700-48, XS3700-24 • Requires 100 V AC to 240 V AC, 5.0 A power	• Removable AC power module for GS3700-24HP, GS3700-48HP, XGS3700-24HP, XGS3700-48HP • Requires 100 V AC to 240 V AC, 8.0 A power

ZYXEL
Your Networking Ally

Wireless LAN

Wireless LAN Controller Quick Finder

Segment			Model	
Medium-Sized Business to Enterprise	• Centralized WLAN Management • User/Application Management	• Wireless LAN Controller	NXC5500	
Small- to Medium-Sized Business	• Centralized WLAN Management • User/Application Management	• Wireless LAN Controller	NXC2500	

Wireless LAN Access Point Quick Finder

Segment			Model	
		• 802.11ac dual radio concurrent 2.4 and 5 GHz support • Smart antenna technology • 3 spatial streams	WAC6503D-S	
		• 802.11ac dual radio concurrent 2.4 and 5 GHz support • Smart antenna technology • 2 spatial streams	WAC6502D-S	
Medium-Sized Business to Enterprise	• Centralized WLAN Management • Unified AP: Controller/ Managed AP Standalone AP	• 802.11ac dual radio concurrent 2.4 and 5 GHz support • External antenna • 2 spatial streams	WAC6502D-E	
		• 802.11ac dual radio concurrent 2.4 and 5 GHz support • Outdoor coverage • 3 spatial streams	WAC6553D-E	
		• 802.11ac dual radio concurrent 2.4 and 5 GHz support • Dual-optimized antenna • 3 spatial streams	WAC6103D-I	

Segment			Model	
Medium-Sized Business to Enterprise	• Centralized WLAN Management • Unified AP: Controller/Managed AP Standalone AP	• Dual radio 2.4 and 5 GHz support • Embedded antenna	NWA5123-AC	
		• Single radio 2.4 GHz support • External antenna	NWA5121-N	
		• Single radio 2.4 GHz support • Embedded antenna	NWA5121-NI	
		• Dual radio 2.4 and 5 GHz support • Smart antenna	WAC5302D-S	
		• Single radio 2.4 GHz support • Embedded antenna	NWA5301-NJ	
Small Business	• Web Managed • SNMP Management	• 802.11ac support • Dual radio concurrent 2.4 and 5 GHz • Dual-optimized antenna • GbE interface • IPv6 support	NWA1123-AC PRO	
		• 802.11ac support • Dual radio concurrent 2.4 and 5 GHz • GbE interface • IPv6 support	NWA1123-ACv2	
		• 802.11n support • Long range AP • GbE interface • IPv6 support	NWA1100-NH	

Antenna Series

For Indooors and Outdoors

Model	EXT-108	EXT-109	EXT-114	EXT-118
Product photo				
Space	Outdoor	Outdoor	Outdoor	Outdoor
Type	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, vertical	Linear, vertical	Linear, vertical	Linear, vertical
HPBW/ Horizontal	360°	65°	30°	15°
HPBW/ Vertical	15°	60°	30°	15°
Connector	N type jack	N type jack	N type jack	N type jack
Temperature	-40°C to 80°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	-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 20.47	114 x 114 x 40/ 4.49 x 4.49 x 1.57	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 kit • N-plug adapter • Mounting kit • Quick installation guide	• Cable: N-plug, RP-SMA plug; 3 m • Mounting plate • Quick installation guide	• Cable: N-plug, RP-SMA plug; 3 m • Mounting kit • Quick installation guide	• Cable: N-plug, RP-SMA plug; 3 m • Mounting set • Quick installation guide

Model	ANT2206		ANT2105		ANT3108	ANT3218
Product photo						
Space	Indoor		Outdoor		Outdoor	Outdoor
Type	Directional, 1 port		Omni, 1 port		Omni, 1 port	Directional, 1 port
Frequency band (MHz)	2400 - 2500	4900 - 5875	2400 - 2483	5150 - 5875	5150 - 5875	5150 - 5875
Gain	6 dBi	8 dBi	4.5 dBi	7 dBi	8 dBi	18 dBi
VSWR	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.
Polarization	Linear, vertical	Linear, vertical	Linear, vertical	Linear, vertical	Linear, vertical	Linear, vertical
HPBW/ Horizontal	65°	50°	360°	360°	360°	15.5°
HPBW/ Vertical	75°	50°	30°	15°	20°	15.5°
Connector	RP-SMA plug		N type plug		N type jack	N type jack
Temperature	-10°C to 55°C/14°F to 131°F		-10°C to 70°C/14°F to 158°F		-40°C to 80°C/-40°F to 176°F	-40°C to 80°C/-40°F to 176°F
Weight (g/lb.)	110/0.24		70/0.15		206/0.46	700/1.54
Dimensions (mm/in.)	76 x 86 x 118/ 2.99 x 3.39 x 4.65		ø22 x 183		ø20 x 260	210 x 210 x 73/ 8.27 x 8.27 x 2.87
Accessory kit	• Screw kit • Quick installation guide		-		• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide

Model	ANT1310	ANT1313	ANT1314	ANT1315
Product photo				
Space	Indoor	Outdoor	Outdoor	Outdoor
Type	Directional, 2x2	Directional, 2x2	Sector, 2x2	Directional, 3x3
Frequency band (MHz)	2300 - 2700	2400 - 2500	2400 - 2500	2400 - 2500
Gain	9 - 10 dBi	13 - 13.5 dBi	14±0.5 dBi	14.5 - 15 dBi
VSWR	1.5:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.
Polarization	Linear/Horizontal	Cross polarization ±45°	Linear, ±45°	Linear, cross polarization
HPBW/ Horizontal	51°	33°	60°	39° - 48°
HPBW/ Vertical	66°	35°	13°	19° - 20°
Side lobes level	-14 dB Max.	-13 dB Max.	-	-10 dB Max.
Front to back ratio	-13 dB Max.	-25 dB Max.	-25 dB Max.	-19 dB Max.
Connector	SMA jack x 2	N type jack x 2	N type jack x 2	N type jack x 3
Temperature	-10°C to 55°C/14°F to 131°F	-40°C to 80°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.)	130/0.29	800/1.76	800/1.76	1140/2.51
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
Accessory kit	• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide

Model	ANT3315	ANT3316	ANT3320
Product photo			
Space	Outdoor	Outdoor	Outdoor
Space	Sector, 2x2	Directional, 2x2	Directional, 3x3
Frequency band (MHz)	5150 - 5875	5150 - 5875	5150 - 5875
Gain	15±0.5 dBi	15 - 16 dBi	20±1 dBi
VSWR	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.
Polarization	Linear, ±45°	Linear, ±90°	Linear, cross polarization
HPBW/ Horizontal	60°	19°	17°
HPBW/ Vertical	8°	21°	8°
Side lobes level	-5 dB Max.	-	-10 dB Max.
Front to back ratio	-30 dB Max.	-20 dB Max.	-35 dB Max.
Connector	N type jack x 2	N type jack x 2	N type jack x 3
Temperature	-40°C to 80°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.)	1.4/3.09	800/1.76	2500/5.51
Dimensions (mm/in.)	560 x 120 x 145/ 22.04 x 4.72 x 5.71	210 x 210 x 73/ 8.27 x 8.27 x 2.87	371 x 371 x 165/ 14.61 x 14.61 x 6.50
Accessory kit	• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide	• Mounting kit • Quick installation guide

Cable Series

Product	LMR 200-N	LMR 400-N	EXT-300
Product Photo			
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

Wireless LAN License

Item	Description	For
Managed AP Scalability	The NXC2500 Managed AP License increases the number of APs that can be managed by the NXC2500. The maximum number of APs supported is 64*.	NXC2500
	The NXC5500 Managed AP License increases the number of APs that can be managed by the NXC5500. The maximum number of APs supported is 512.	NXC5500
ZyMesh	This license enables the ZyMesh function on the NXC5500 and NXC2500.	NXC2500 NXC5500

* Management of 64 APs is supported with firmware version V4.10 or above.

Cable Series

Direct Attached Cable 10G Series	DAC10G	
	DAC10G-1M	**DAC10G-3M**
Connector	SFP+ to SFP+	SFP+ to SFP+
Max. Transmission Distance (m/ft)	1/3.28	3/9.84
Operational Ranges		
Supply voltage	3.13 - 3.47 V	3.13 - 3.47 V
Max. current	480 mA	480 mA

Transceiver Series

Transceiver Class	10 Gigabit XFP		10 Gigabit SFP+	
	XFP-SR	**FTLX1412D3BCL (XFP-LR)**	**SFP10G-SR**	**SFP10G-LR**
Features	• Industry standards compliant • SFP MSA (Multi-Source Agreement) compliant • Hot-pluggable with maximum flexibility • Compact size, high port density • Low power dissipation • Support DDMI (Digital Diagnostics Monitoring Interface) features			
Specifications				
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

Transceiver Class	Gigabit SFP						
	SFP-1000T	**SFP-SX-D**	**SFP-LX-10-D**	**SFP-BX1310-10-D**[*1]	**SFP-BX1490-10-D**[*1]	**SFP-LHX1310-40-D**	**SFP-ZX-80-D**
Features	• Industry standards compliant • SFP MSA (Multi-Source Agreement) compliant • Hot-pluggable with maximum flexibility • Compact size, high port density • Low power dissipation						
Specifications							
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

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

ZYXEL
Your Networking Ally

Unlock Networking Possibilities with Cloud

Nebula Cloud Networking and Management Solution
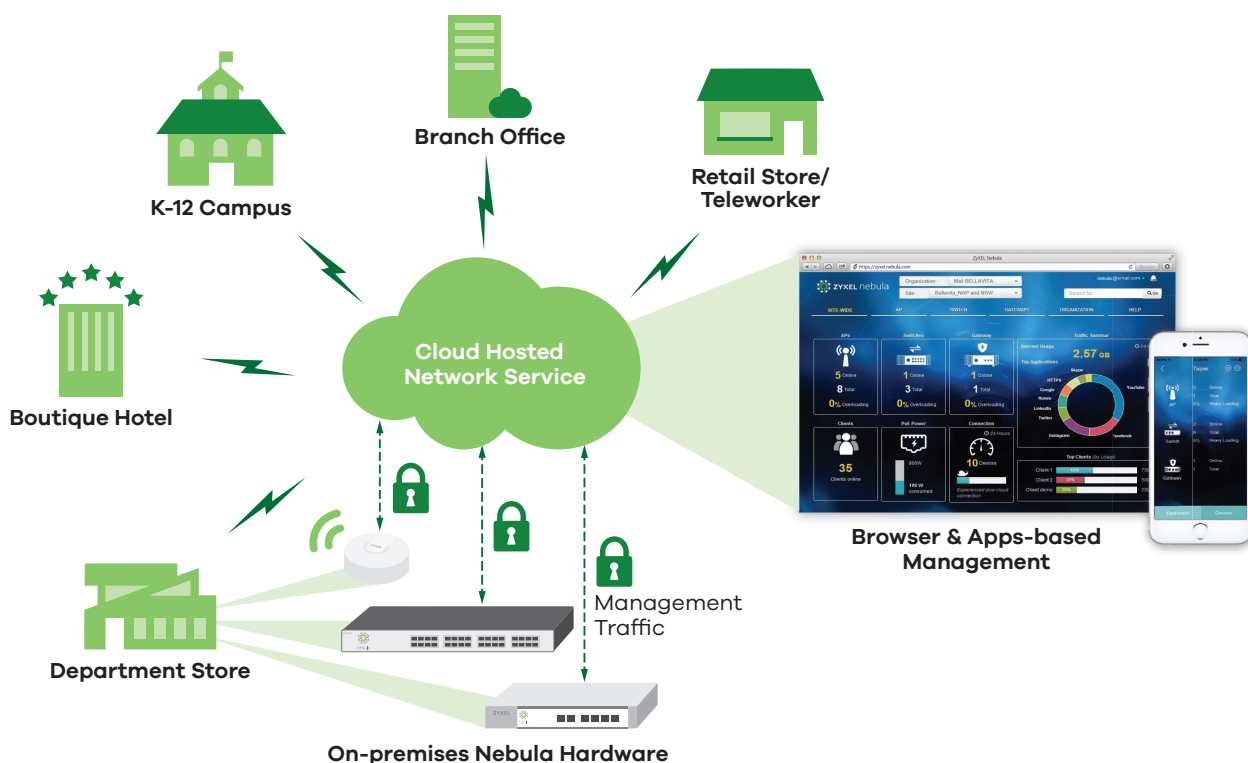Solution Brief

nebula

Overview

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

- Devices and networks continue forwarding traffics even after licenses expire

- Standard-based, affordable solution to fit even the tightest budget and to maximize ROI

Branch Office

K-12 Campus

Retail Store/Teleworker

Boutique Hotel

Cloud Hosted Network Service

Browser & Apps-based Management

Management Traffic

Department Store

On-premises Nebula Hardware

Introduction to Nebula cloud managed networks

Nebula's networking products, including access points, switches and security gateways, are purpose-built for cloud management. They break the traditions and come up with easy management, centralized control, auto-configuration, real-time Web-based diagnostics, remote monitoring and more.

The Nebula cloud managed networking introduces an affordable, effortless approach for network deployments with high security and scalability to provide completely control over Nebula devices and users. When an organization grows from small sites to massive,

distributed networks, the Nebula hardware with cloud-based self-provisioning enables easy, quick and plug-n-play deployment to multiple locations without IT professionals.

Through Nebula cloud services, firmware and security signature updates are delivered seamlessly, while secure VPN tunnels can be established automatically between different branches over the Web with just a few clicks. Based on a secure infrastructure, Nebula is designed with fault-tolerant properties that enable local networks to keep operating properly in WAN downtimes.

Nebula cloud managed networking architecture

The Nebula Cloud provides a networking paradigm for building and managing networks over the Internet in the Software as a Service model. Software as a Service (SaaS) is defined as a way of delivering software for users to access via the Internet rather than local installation. In the Nebula architecture, network functions and management services are pushed to the cloud and delivered as a service that provides instant control to the entire network without wireless controllers and overlay network management appliances.

All Nebula devices are built from the ground up for cloud management with the capability to communicate with

Nebula's cloud control center through the Internet. This TLS-secured connectivity between hardware and the cloud provides network-wide visibility and control for network management using the minimal bandwidth.

Over the cloud, thousands of Nebula devices around the world can be configured, controlled, monitored and managed under a single pane of glass. With multi-site network management tools, businesses are allowed to deploy new branches of any size, while administrators are able to make policy changes any time from a central control platform.

Data Privacy and Out-of-band Control Plane

The Nebula service uses the infrastructure and services built upon the Amazon Web Service (AWS), so all Nebula security details can be referred to AWS Cloud Security. Nebula is committed to data protection, privacy and security as well as compliance with applicable regulatory frameworks in the world. Nebula's technical architecture along with its internal administrative and procedural safeguards can assist customers with design and deployment of cloud-based networking solutions that comply with EU data privacy regulations.

In Nebula's out-of-band control plane, network and management traffics are split into two different data paths. Management data (e.g. configuration, statistics, monitoring, etc.) turn towards Nebula's cloud from devices through an encrypted Internet connection of the NETCONF protocol, while user data (e.g. Web browsing and internal applications, etc.) flows directly to the destination on the LAN or across the WAN without passing through the cloud.

Cloud Hosted Network Service

Internet Traffic

Management Traffic

LAN Traffic

WLAN Traffic
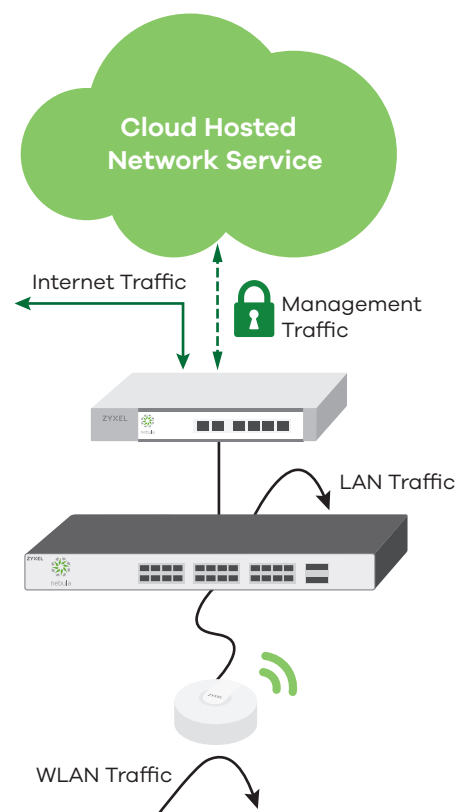
Nebula Control Center (NCC)

Nebula Control Center offers a powerful insight into distributed networks. Its intuitive wed-based interface illustrates an instant view and analysis of network performance, connectivity and status automatically and continuously. Integrated with site-wide management tools, Nebula provides a quick and remote access for administrators to ensure the network is up and performing efficiently.

Nebula Control Center is also engineered with a number of security tools that provide optimal protection to networks, devices and users; and they also deliver the needed information to enforce security and enhance control over the entire Nebula network.

Highlights

- **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**

- **Rich site-wide management tools**
- **Configuration changing alerts**
- **Misconfigure protection against disconnecting NCC**
- **Configure login auditing**
- **SSL certificates and idle timeout**
- **Multi-lingual management interface (English, Traditional Chinese and more to come)**

Role-based Administration

Supervisors are allowed to appoint different privileges for multiple administrators to manage network and guess access. Specify management authority in the network access control function to maximize security and to avoid accidental misconfiguration.

Real-time Monitoring

Nebula Control center provides 24x7 monitoring over the entire network, giving administrators real-time and historical activity views with unlimited status records that can be backdated to the installation time.

Role-based Administration

Site-wide Management Tools

Integrated with the feature-rich dashboards, maps, floor plans, automated network topology and site-based configuring tools, the Nebula Control Center delivers instant network analysis and automatically performs AP authentication, configuration parity check, switch ports link aggregation and site-to-site VPN.

Site-wide Management Tools

Misconfiguration Protection

To prevent any connectivity interruption caused by incorrect or inappropriate configuration, the Nebula devices can intelligently identify if the order or setting from NCC is correct to ensure the connection is always up with the Nebula cloud.
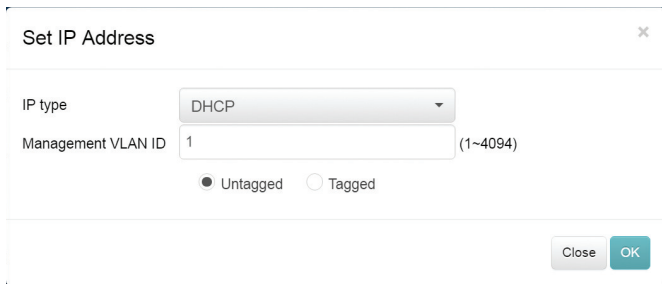
Misconfiguration Protection

Configuration Changing Alerts

Configuration changing alerts help administrators to manage thousands of networking devices more efficiently, especially in larger or distributed sites. These real-time alerts are automatically sent from the Nebula Cloud system when configuration changes are made to keep new policies always up-to-date in the entire IT organization.
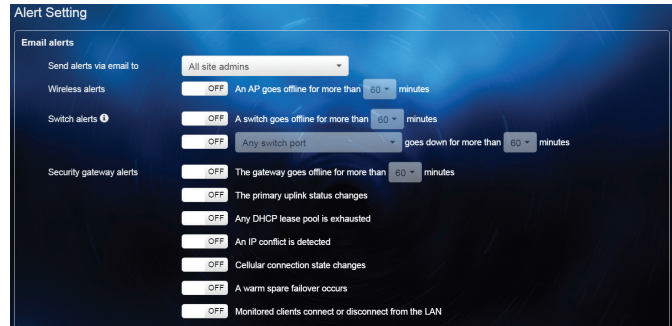
Configuration Changing Alerts

Configure Login Auditing

The Nebula cloud control center automatically records the time and IP address of every logged in administrators. The login audit log lets administrators track Web-based login actions on their Nebula networks to see what configuration changes were made and who made the changes.

SSL Certificates

Nebula establishes an encrypted connection between its cloud services and administrators' browsers that allows sensitive and private data to be transmitted securely and confidentially.

Idle Timeout

Under Nebula's cloud architecture, a connection can only stay active in a specific length of time if no traffic is sent through the connection. A notification will be sent before the system logs the user out; once the session expires, users are asked to login again to resume the services.

Product Options

Model	NAP102	NAP203	NAP303	NAP353
	802.11ac Dual-Radio Nebula Cloud Managed Access Point	802.11ac Dual-Radio, Dual-Optimized Antenna 3x3 Nebula Cloud Managed Access Point	802.11ac Dual-Radio Smart Antenna 3x3 Nebula Cloud Managed Access Point	802.11ac Dual-Radio External Antenna 3x3 Nebula Cloud Managed Outdoor Access Point
Product name				
Typical deployment	Entry level wireless establishments	Medium to high density deployments	High density and interference-laden indoor environments	Harsh outdoor environments
Radio specification	• 1 x 802.11 b/g/n radio • 1 x 802.11 a/n/ac radio • 1.2 Gbps max rate • 2x2 MIMO with 2 streams	• 1 x 802.11 b/g/n radio • 1 x 802.11 a/n/ac radio • 1.75 Gbps max rate • 3x3 MIMO with 3 streams	• 1 x 802.11 b/g/n radio • 1 x 802.11 a/n/ac radio • 1.75 Gbps max rate • 3x3 MIMO with 3 streams	• 1 x 802.11 b/g/n radio • 1 x 802.11 a/n/ac radio • 1.75 Gbps max rate • 3x3 MIMO with 3 streams
Power	DC input: 12 VDC, 1 A PoE: 802.3at compliant	802.3at PoE only (No DC jack)	DC input: 12 VDC, 2 A PoE: 802.3at compliant	PoE: 802.3at compliant
Antenna	Embedded antenna	Dual-optimized internal antenna	6 embedded Smart Antenna	6 N-type connectors*
Dimensions (WxDxH)(mm/in.)	130 x 130 x 54.7/ 5.12 x 5.12 x 2.17	203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37	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
Weight (g/lb.)	300/0.67	445/0.98	982/2.17	1708/3.77

* The antenna is not embedded and external antennas are separately sold.

Nebula Cloud Managed Switches

The Zyxel Nebula cloud managed layer-2 switches are ideal for deployment to branch locations. Designed to be managed completely from the Nebula Control Center, the cloud interface of Nebula switches provides site-wide configuration and monitoring of all ports that allow multiple switches to be configured at the same time with a single click.

The Nebula switches introduce many cloud benefits, such as simplified configuration, easy management, site-wide visibility and real-time control for speedy branch network deployments to networks. Advanced settings such as user friendly ACL, VLAN-based QoS and PoE scheduling significantly improve the efficiency of network management.

Highlights

- Layer-2 Gigabit access switching with 8/24-port PoE and non-PoE models
- Support 10GE uplinks to servers for high bandwidth network (NSW200-28P)
- User-friendly ACL and VLAN configuration
- Support DHCP Server Guard and IGMP snooping

- Optimized for quality voice and video traffic with high 375-watt (NSW200-28P, NSW100-28P) / 180-watt (NSW100-10P) power budget PoE technology
- Port Mirroring for network traffic monitoring
- Intelligent PoE technology and network topology
- RADIUS, static MAC forwarding and 802.1X authentication

Product Options

Model	NSW100-10	NSW100-10P	NSW100-28	NSW100-28P	NSW200-28P
Product name	8-port GbE Nebula Cloud Managed Switch	8-port GbE Nebula Cloud Managed PoE Switch	24-port GbE Nebula Cloud Managed Switch	24-port GbE Nebula Cloud Managed PoE Switch	24-port GbE Nebula Cloud Managed PoE Switch with 10GbE Uplink
Switch class	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
Total port count	10	10	28	28	28
100/1000 Mbps	8	-	24	-	-
100/1000 Mbps PoE	-	8	-	24	24
10 Gigabit SFP+	-	-	-	-	4
Gigabit combo (SFP/RJ-45)	2	2	4	4	-
Switching capacity (Gbps)	20	20	56	56	128
Total PoE power budget (watts)	-	180	-	375	375

Nebula Cloud Managed Security Gateways

The Nebula Cloud Managed Security Gateways are built with remote management and ironclad security for organizations with growing numbers of distributed sites. With the comprehensive Next-Gen Firewall features with IDP and Application Patrol technology, Nebula security gateways provide deep, extensive protection to meet everything that small- to mid-size businesses would need.

As the Zyxel Nebula Security Gateway has been completely designed for cloud management, it can automatically pull configuration settings from the cloud, self-configure site-to-site VPN, receive seamless firmware and security signature updates over the Web. Through Nebula's cloud interface, administrators are able to create site-wide policies and monitor all the branch sites effortlessly.

Highlights

- Complete networking, security and application control over the cloud
- Zero-touch site-to-site VPN
- Secure networks with Next-Gen Firewall, IDP and Application Patrol*

- Built-in DHCP, NAT, QoS and VLAN management
- Static route and dynamic DNS support
- Identity-based security policies and application management
- Support Nebula cloud authentication

* Every NSG100 is pre-bundled with one year IDP and Application Patrol service

Product Options

Model	NSG50	NSG100
Product name	Nebula Cloud Managed Security Gateway	Nebula Cloud Managed Security Gateway
Firewall throughput	300 Mbps	650 Mbps
VPN throughput	70 Mbps	140 Mbps
IDP throughput (IDP)	120 Mbps	180 Mbps
Max. TCP concurrent sessions	20,000	40,000
Multi-WAN	Yes	Yes