





USG FLEX 50H/100H/200H/500H/700H

USG FLEX H Firewall

USG FLEX H series, named for its groundbreaking high performance, gives ultra firewall/UTM/VPN throughput with powerful multi-gig and PoE+ interfaces to get you ready for the multi-gig era. Empowered by Zyxel Al cloud, USG FLEX H series unleashes best-in-breed multi-layered protection to blank your corporate premises with seamless safety against mounting cyber threats. To make the great even greater, USG FLEX H, with enhanced SecuExtender, makes it easier to extend the same security to all your remote networks, proving that small or mid-sized business users can also enjoy enterprise-grade security at lightning speed.

Benefits

Ultra high performance

With next-generation multi-core hardware and Fastpath technology, USG FLEX H series is designed with dedicated system resources to minimize packet processing time, reduce latency, and accelerate traffic flows. It is also fabricated for optimal utilization of processors to boost performance, all together to deliver superior performance catering to your needs for high speed networks.



Datasheet USG FLEX 50H/100H/200H/500H/700H



Cloud & on-prem security integrated with smart sync



Firewall/VPN/UTM ultra high performance



Multi-gig user-definable WAN/ LAN Ethernet ports with up to 10Gbps speed



Optional 802.3at PoE+ enables eco-friendly deployments without AC adapters



High assurance multi-layered protection against cyber threats



Comprehensive Reputation Filter includes IP/URL/DNS inspection



SecuExtender VPN utility supports both IKEv2 & SSL VPN







Port flexibility, Multi-G and PoE+

With 2.5GbE and 10GbE Port Speed options, the USG FLEX H also features software-defined ports, allowing you true flexibility in tailoring each USG FLEX H port as required (WAN or LAN). It offers 2 PoE+ integrated ports with total 30W power budget to simplify installations and reduce install costs by allowing you power devices directly from the USG FLEX H itself. (The USG FLEX H series models are compatible with different PoE+ integrated ports, please click here.)



Al-powered cloud cybersecurity

Block malicious threats and restrict inappropriate user behaviors. The USG FLEX H series leverages AI-powered cloud intelligence to operate multi-layered protection such as sandboxing, anti-malware, DNS/IP/URL filtering, IPS, and application patrol over your premises.

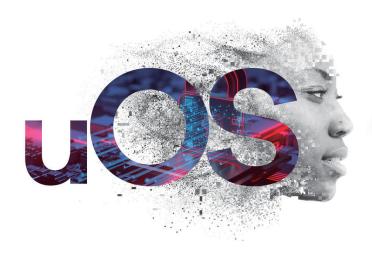


Our new Fast and Powerful uOS

The USG FLEX H series introduces our latest powerful uOS. It is designed to increase security, minimize system response time, apply configuration changes instantly and optimize configuration and security policy management with its new intuitive UX design.

Cloud & on-prem in sync

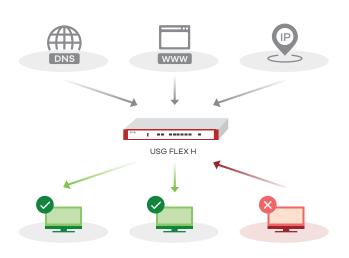
Nebula revolutionizes network management with Smart Sync, enabling seamless cloud-based configuration of on-premise firewalls. Effortlessly enforce unified security policies, monitor threats in real time, and optimize performance from anywhere. This cutting-edge solution delivers unmatched convenience, scalability, and robust protection across hybrid cloud environments.





Preemptive defense by Reputation Filter

Stop 70% of common cyberattacks with Reputation Filter service without sacrificing your network performance thanks to its low computing requirement. Reputation Filter consist of IP Reputation, DNS Filter, and URL threat filter. Analyzes IP, domain, URL addresses with up-to-date cloud reputation databases and determines if addresses are safe or not. Automatically blocks access to compromised sources, providing granular protection.



Deep insights of devices

Device insight gives a centralized dashboard of your network activities and information from all connected devices. Tune your access policies based on attributes such as OS version or device categories to achieve network segmentation for limited attack surface and prevent threat from spreading. Easily trace issues and prevent future threat incidents with SecuReporter, provides comprehensive threat analysis and correlations between events.



Friendly for OS-native VPN clients

IKEv2 is a de-facto VPN protocol known for its security, reliability, and efficiency, a safer and more enhanced protocol than L2TP. It's widely adopted so it comes with outstanding interoperability with various types of VPN clients, OS, and VPN gateways. Easy wizard ensures in-a-few-clicks compatibility with free-of-charge OS-native IKEv2 VPN clients such as Windows, macOS, iOS, and Android (via StrongSwan app).



High assurance multi-layered protection

Designed with multi-layer protection that blocks both outside malicious threats as well as internal inappropriate user behaviors. Restrict high-risk applications or web access from inside your network. Industry-leading DNS filter with TLS 1.3 eliminates all blind spots in all encrypted traffic without the need to deploy SSL inspection.



License

License Service

The USG FLEX H series provides an indispensable feature set to perfectly fit small business requirements as well as to gain essential security services needed to protect against cyberattacks. Nebula Control Center (NCC) offers multiple subscription options to meet customers' needs. The Nebula Plus/Professional Pack give you peace of mind at more control over your network updates and visibility, or even the most advanced management of cloud networking.

Service	Gold Security Pack Included with Gold Bundle H/W	Entry Defense Pack Included with Entry Bundle H/W
Sandboxing	Yes	-
Reputation Filter	Yes	Yes
Web Filtering	Yes	-
Anti-Malware	Yes	-
IPS	Yes	-
Application Patrol	Yes	-
Device Insight	Yes	-
SecuReporter	Yes	Yes
Nebula Pro Pack	Yes	Priority Support Only*
Secure WiFi*1	Yes	-
Security Profile Sync	Yes	-

^{*:} Priority Support is available to customers with a Pro Pack organization or those using USG FLEX H series firewalls with Gold Security Pack or Entry Defense Pack licenses. Eligible customers can open support tickets for prioritized assistance.

^{*1:} The tunnel mode and Remote AP will be available in Q4 2025.

A la carte License	
Nebula Pro Pack	The Pro Pack includes all of our advanced functionality, designed to cater to larger and more complex deployments, featuring advanced diagnostic tools, Al functionality, and the ability to unlock the full potential of the network hardware.
Nebula Plus Pack	The Plus Pack has been designed to expand the functionality from the Base Pack to cater for network administrators wishing to gain access to tools that speed up and simplify day-to-day operations.
Secure WiFi*	The Secure WiFi service allows you to easily and securely extend the working experience as if you were in the office, through secure tunneling and strict two-factor authentication. It also enables the management of more than 8 access points (APs) up to the maximum capacity for the USG FLEX H firewall.

^{*:} The tunnel mode and Remote AP will be available in Q4 2025..

Specifications

Model		USG FLEX 50H/HP	USG FLEX 100H/HP	USG FLEX 200H/HP
Product photo				
		ZYXXL	ZYXEL TO BEEFFEE L	27XL

Hardware Spe	cifications			
Network	100M/1G Ethernet (RJ-45)	5	8	6
interfaces	100M/1G/2.5G Ethernet (RJ-45)	-	-	2
	1G/2.5G/5G/10G Ethernet (RJ-45)	-	-	-
	1G SFP/10G SFP+	-	-	-
	IEEE 802.3at (PoE+) Port	Port 5 (50HP only)	Port 8 (100HP only)	Port 2 (2.5G, 200HP only
	Total PoE budget (watts)	30	30	30
USB 3.0 Type-	Α	1	1	1
Console port		Yes (RJ-45)	Yes (RJ-45)	Yes (RJ-45)
Rack-mountal	ole	-	-	Yes
Fanless		Yes	Yes	Yes
	city & Performance*1			
	roughput (Mbps)*2	2,000	4,000	6,500
VPN throughp	 	500	900	1,200
IPS throughpu	<u> </u>	1,000	1,500	2,500
Anti-Malware	throughput (Mbps)*4	600	1,000	1,800
UTM throughp	ut (Anti-Malware and IPS)*4	600	1,000	1,800
Max. TCP cond	current sessions*5	100,000	300,000	600,000
Max. concurre	nt IPSec VPN tunnels*6	20	50	100
Recommended IPSec VPN tun	d gateway-to-gateway nels	5	20	50
Concurrent SS	SL VPN users	15	25	50
VLAN interfac	е	8	16	32
Speedtest Per	formance			
SPI firewall thr	roughput (Mbps)* ⁷	926.76	931.61	929.97
Key Features				
Security	Anti-Malware	Yes	Yes	Yes
Service*8	IPS	Yes	Yes	Yes
	Application Patrol	Yes	Yes	Yes
	Web Filtering	Yes	Yes	Yes
	Reputation Filter	Yes	Yes	Yes
	SecuReporter	Yes	Yes	Yes
	Sandboxing	Yes	Yes	Yes
	Security Profile Sync	Yes	Yes	Yes
	Device Insight	Yes	Yes	Yes
	SSL (HTTPS) Inspection	Yes	Yes	Yes
	Two-Factor Authentication	Yes	Yes	Yes
VPN	VPN Protocol	IKEv2/IPSec, SSL, Tailscale*9	IKEv2/IPSec, SSL, Tailscale*9	IKEv2/IPSec, SSL, Tailscale*9
	Nebula SD-VPN	Yes	Yes	Yes
	Auto-link VPN	Yes	Yes	Yes
	Manual-link VPN	Yes	Yes	Yes
	VPN Topology	Yes	Yes	Yes
WLAN	Default Number of Managed AP	8	8	8
Management	Secure WiFi*8	Yes	Yes	Yes
	Maximum Number of Tunnel-Mode AP*10	3	6	10
	Maximum Number of Managed AP	12	24	40
	Recommend max. AP in	10	10	20

Model		USG FLEX 50H/HP	USG FLEX 100H/HP	USG FLEX 200H/HP
Key Features				
Management & Connectivity	Nebula Centralized Management	Yes	Yes	Yes
	Device HA	-	-	Yes
	Link Aggregation (LAG)	Yes	Yes	Yes
	Concurrent devices logins (max.)*11	64	64	200
	Burst login rate (users/30sec)	64	64	200
Power Requirem	ents			
Power input		50H: 12V DC, 2A 50HP: 19V DC, 3.42A	100H: 12V DC, 2A max. 100HP: 19V DC, 3.42A	200H: 12V DC, 2A max. 200HP: 19V DC, 3.42A
Max. power cons	umption (Watt max.)	50H: 8.86 50HP: 48.65	100H: 17 100HP: 51.2	200H: 22 200HP: 62
Heat dissipation	(BTU/hr)	50H: 32.42 50HP: 175.73	100H: 40.365 100HP: 194.5	200H: 58.75 200HP: 191.9
Physical Specific	ations			
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 5.80 x 1.30	272 x 187 x 36/ 10.7 x 7.36 x 1.42
	Weight (kg/lb.)	50H: 1.02/2.26 50HP: 1.04/2.31	100H: 1.04/2.29 100HP: 1.05/2.31	200H: 1.52/3.34 200HP: 1.52/3.35
Packing	Dimensions (WxDxH) (mm/in.)	278 x 189 x 99/ 10.94 x 7.44 x 3.89	278 x 189 x 99/ 10.94 x 7.44 x 3.89	427 x 247 x 73/ 16.81 x 9.72 x 2.87
	Weight (kg/lb.)	50H: 1.27/2.80 50HP: 1.55/3.41	100H: 1.62/3.57 100HP: 1.91/4.21	200H: 2.43/5.36 200HP: 2.68/5.92
Included accesso	ories	 Power adapter Power cord (50HP only) RJ-45 to RS-232 cable for console connection 	 Power adapter Power cord (100HP only) RJ-45 to RS-232 cable for console connection 	 Power adapter Power cord (200HP only) RJ-45 to RS-232 cable for console connection Rack mounting kit (optional, by regions)
Environmental S	pecifications			
Operating	Temperature Humidity	0°C to 40°C/32°F to 104°F 10% to 90%	0°C to 40°C/32°F to 104°F 10% to 90%	0°C to 40°C/32°F to 104°F 10% to 90%
Storage	Temperature	(non-condensing) -30°C to 70°C/ -22°F to 158°F	(non-condensing) -30°C to 70°C/ -22°F to 158°F	(non-condensing) -30°C to 70°C/ -22°F to 158°F
	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
MTBF (hr)		50H: 40°C/596100.85308 hr 25°C/945046.81927 hr 50HP: 40°C/402515.716 hr 25°C/665839.12962 hr	100H: 40°C/353878.1057 hr 25°C/602150.9604 hr 100HP: 40°C/289845.2327 hr 25°C/518347.4294 hr	200H: 40°C/306768.409 hr 25°C/528037.0106 hr 200HP: 40°C/227747.9662 hr 25°C/392638.3847 hr
Acoustic noise		-	-	-
Certifications		500 Part 45 (CL - 5)	500 D+ 45 (0) D)	500 P = + 45 (01 - 5)
EMC		FCC Part 15 (Class B), CE EMC (Class B), RCM (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), RCM (Class B), BSMI	FCC Part 15 (Class B), CE EMC (Class B), RCM (Class B), BSMI
Safety		LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI

^{*:} This matrix with firmware uOS1.32 or later.

^{*1:} Actual performance may vary depending on system configuration, network conditions, and activated applications.

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

^{*3:} VPN Throughput measurement are based on RFC2544 (1,424-byte UDP packet).

*4: Anti-Malware (with Express Mode) and IPS throughput is measured using the industry standard HTTP performance test (1,460-byte HTTP packets).

Testing done with multiple flows.

^{*5:} Maximum sessions are measured using the industry standard IXIA IxLoad testing tool.

^{*6:} Including Gateway-to-Gateway and Client-to-Gateway.

*7: The Speedtest result is conducted with 1Gbps WAN link in real world and it is subject to fluctuate due to quality of the ISP link.

^{*8:} Requires a Zyxel service license to enable or extend feature capacity. SSL (HTTPS) inspection and Two-Factor Authentication are default supported features for any registered USG FLEX H device.

^{*9:} Local GUI only. *10: Available in Q4, 2025

^{*11:} This is the recommend maximum number of concurrent logged-in devices.

Network interfaces 100M/16 Ethernet (RJ-45) 8 8 interfaces 100M/16/2.56 Ethernet (RJ-45) 4 2 19/2.50/56/00e Ethernet (RJ-45) - 2 19/2.50/56/00e Ethernet (RJ-45) - 2 19/2.50/56/00e Ethernet (RJ-45) - 2 19/2.50/56/00e Ethernet (RJ-45) Port 3, 4 (2.5G) Port 3, 4 (10G) 108.30 Type-A 1 1 1 Console port Yes (RJ-45) Yes (RJ-45) Yes (RJ-45) Rack-mountable Yes (RJ-45) Yes (RJ-45) Yes (RJ-45) Faniless - - - Faniless - - - Faniless 2 Yes (RJ-45) Yes (RJ-45) SPI firewall throughput (Mbps)*** 1,000 15,000 Yes (RJ-45) SPI firewall throughput (Mbps)*** 2,000 3,000 4,000 IPS throughput (Mbps)*** 3,000 4,000 4,000 Max. TCP concurrent sessions** 1,000,000 2,000,000 Max. TCP concurrent sessions** 1,000,000					
Network interfaces 100M/1G Ethernet (RJ-45) 8 8 interfaces 100M/1G/2.5G Ethernet (RJ-45) 4 2 16/J.Sc/3G/3G/10G Ethernet (RJ-45) - 2 16/J.Sc/3G/3G/3G/10G Ethernet (RJ-45) - 2 16/J.Sc/3G/3G/3G/3G/3G/3G/3G/3G/3G/3G/3G/3G/3G/				cifications	Hardware Spe
Interfaces 100M/fig/2.5G Ethernet (RJ-45)		8	8		•
16 SFP/10G SFP+		2	4		nterfaces
16 SFP/10G SFP+			-	1G/2.5G/5G/10G Ethernet (RJ-45)	
Total PoE budget (watts)			-	1G SFP/10G SFP+	
Total PoE budget (watts)	(10G)		Port 3, 4 (2.5G)		
1					•
Ves (RJ-45) Ves (RJ-45) Ves (RJ-45)				<u> </u>	JSB 3.0 Type-/
Ves	45)	Yes (RJ-45)	Yes (RJ-45)		
Security				ole	
Post Process Performance		-	-		
Pri firewall throughput (Mbps)*2 10,000 15				ity & Performance*1	
PN throughput (Mbps)**3		15,000	10,000		
## Sthroughput (Mbps)*4					
### Anti-Malware throughput (Mbps)*4					
TM throughput (Anti-Malware and IPS)*4 3,000 4,000 Max. TCP concurrent sessions*5 1,000,000 2,000,000 Max. concurrent IPSec VPN tunnels*6 300 1,000 Max. concurrent IPSec VPN tunnels*6 300 300 Max. concurrent SSL VPN users 150 300 Max. concurrent SSL VPN users 150 500 Max. concurrent SSL VPN us					
Adax. TCP concurrent sessions*5					
Max. concurrent IPSec VPN tunnels*6 300 1,000 Max. concurrent IPSec VPN tunnels*6 300 300 Max. concurrent SSL VPN users 150 300 Max. concurrent SSL VPN users 150 500 Max. concurrent SSL VPN users 150 Max. concurrent SSL VP					
Second S	<u> </u>				
Concurrent SSL VPN users 150 500					
Pl firewall throughput (Mbps)*7 938.1 921.64					
Repedtest Performance Repl firewall throughput (Mbps)*7 938.1 921.64 Recurity Recurity Recurity Recurity Replication Patrol Reputation Filter Reputation Filter Reputation Filter Reputation Filter Reputation Filter Resurvice*8 Security Profile Sync Pes Security Profile Sync Pes Security Profile Sync Pes Security Profile Sync Reputation Filter Resurvice*8 Resurvi					
Separation Security Anti-Malware Yes Yes Yes		128	64		
Net		001.04	0001		
Anti-Malware Yes Yes		921.04	936.1	ougnput (Mbps)**	
IPS		Vee	Vac	Anti Mahuma	-
Application Patrol Yes Yes					•
Web FilteringYesYesReputation FilterYesYesSecuReporterYesYesSandboxingYesYesSecurity Profile SyncYesYesDevice InsightYesYesSSL (HTTPS) InspectionYesYesTwo-Factor AuthenticationYesYesVPNVPN ProtocolIKEv2/IPSec, SSL, Tailscale*9IKEv2/IPSec, SSL, Tailscale*9Nebula SD-VPNYesYesAuto-link VPNYesYes				** *	er vice
Reputation Filter SecuReporter Yes Yes Yes Sandboxing Yes Yes Yes Security Profile Sync Pevice Insight Yes Yes Yes SSL (HTTPS) Inspection Two-Factor Authentication Yes Yes Yes Yes Yes Yes Yes Ye					
SecuReporter Yes Yes Sandboxing Yes Yes Security Profile Sync Yes Yes Device Insight Yes Yes SSL (HTTPS) Inspection Yes Yes Two-Factor Authentication Yes Yes VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Tailscale*9 Nebula SD-VPN Yes Yes Auto-link VPN Yes Yes					
Sandboxing Yes Yes Security Profile Sync Yes Yes Device Insight Yes Yes SSL (HTTPS) Inspection Yes Yes Two-Factor Authentication Yes Yes VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Tailscale*9 Yes Nebula SD-VPN Yes Yes Auto-link VPN Yes Yes				·	
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Device Insight Yes Yes SSL (HTTPS) Inspection Yes Yes Two-Factor Authentication Yes Yes VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Tailscale*9 Yes Nebula SD-VPN Yes Yes Auto-link VPN Yes Yes				<u> </u>	
SSL (HTTPS) Inspection Yes Yes Two-Factor Authentication Yes Yes VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL,					
Two-Factor Authentication Yes YPN VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Tailscale*9 Nebula SD-VPN Yes Yes Auto-link VPN Yes Yes		Yes	Yes		
VPN Protocol IKEv2/IPSec, SSL, Tailscale*9 IKEv2/IPSec, SSL, Ta Nebula SD-VPN Yes Yes Auto-link VPN Yes Yes		Yes	Yes	SSL (HTTPS) Inspection	
Nebula SD-VPNYesYesAuto-link VPNYesYes		Yes	Yes	Two-Factor Authentication	
Auto-link VPN Yes Yes	Sec, SSL, Tailscale*	IKEv2/IPSec, SS	IKEv2/IPSec, SSL, Tailscale*9	VPN Protocol	- -
		Yes	Yes	Nebula SD-VPN	
Manual-link VPN Yes Yes		Yes	Yes	Auto-link VPN	
		Yes	Yes	Manual-link VPN	
VPN Topology Yes Yes		Yes	Yes	VPN Topology	
VLAN Default Number of Managed AP 8		8	8	Default Number of Managed AP	VLAN
Management Secure WiFi*8 Yes Yes		Yes	Yes	Secure WiFi*8	// danagement
Maximum Number of Tunnel-Mode AP*10 18 130		130	18	Maximum Number of Tunnel-Mode AP*10	
Maximum Number of Managed AP 72 520					
		200	60	Recommend max. AP in 1 AP Group	-

Model		USG FLEX 500H	USG FLEX 700H
Key Features			
Management &	Nebula Centralized Management	Yes	Yes
Connectivity	Device HA	Yes	Yes
	Link Aggregation (LAG)	Yes	Yes
	Concurrent devices logins (max.)*11	500	2,000
	Burst login rate (users/30sec)	220	220
Power Requirem	ents		
Power input		19V DC, 4.736A	100 - 240V AC, 50/60Hz, 2A
Max. power cons	sumption (Watt max.)	68	86.7
Heat dissipation	(BTU/hr)	211.3	235
Physical Specific	cations		
Item	Dimensions (WxDxH)(mm/in.)	300 x 182 x 43.5/11.81 x 7.17 x 1.71	430 x 250 x 43.5/16.93 x 9.84 x 1.71
	Weight (Kg/lb.)	1.64/3.62	3.14/6.93
Packing	Dimensions (WxDxH)(mm/in.)	350 x 149 x 244/13.78 x 5.87 x 9.61	512 x 395 x 162/20.16 x 15.55 x 6.38
	Weight (kg/lb.)	2.93/6.46	4.90/10.81
Included access	ories	 Power adapter & Power cord RJ-45 to RS-232 cable for console connection Rack mounting kit 	 Power cord RJ-45 to RS-232 cable for console connection Rack mounting kit
Environmental S	pecifications		
Operating	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	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)		40°C/346653.298 hr 25°C/491775.8384 hr	40°C/431877.9743 hr 25°C/669031.2966 hr
Acoustic Noise		16.86dBA on < 25°C operating temperature, 43.76dBA on full FAN speed	16.85dBA on < 25°C operating temperature, 47.84dBA on full FAN speed
Certifications			
EMC		FCC Part 15 (Class A), CE EMC (Class A), RCM (Class A), BSMI	FCC Part 15 (Class A), CE EMC (Class A), RCM (Class A), BSMI
Safety		LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI

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^{*9:} Local GUI only.

^{*10:} Available in Q4, 2025

^{*11:} This is the recommend maximum number of concurrent logged-in devices.

Software Features

Security Service

Firewall

- Routing and transparent (bridge) modes
- Stateful packet inspection
- Source IP Spoofing Prevention
- FTP/SIP ALG
- Dos Prevention (Preventing Flood and Sweep Attacks)
- Per host session limit
- Support External IP Block List
- Flooding detection and protection

Security Policy

- Unified policy management interface
- Support Content Filtering, Application Patrol, firewall (ACL)
- Firewall: SSL inspection
- Policy criteria: source and destination IP address, user group, time
- Policy criteria: zone, user

Intrusion Prevention System (IPS)

- Streamed-based engine
- Signature-based scanning
- Support both intrusion detection and prevention
- Support allow list (whitelist) to deal with false positives involving known benign activity
- Support exploit-based and vulnerability-based protection
- Support Web attacks like XSS and SQL injection
- Automatic new signature update mechanism support

Application Patrol

- Smart single-pass scanning engine
- Identifies and control thousands of applications and their behaviors
- Support up to 25 application categories
- Granular control over the most popular applications
- Real-time application statistics and reports
- Identify and control the use of DoH (DNS over HTTPS)

Anti-Malware

- High performance query-based scan engine (Express Mode)
- Works with over 30 billion of known malicious file identifiers and still growing
- Wild range file type examination
- Support HTTP/SMTP/POP3/FTP scan

Sandboxing

- Cloud-based multi-engine inspection
- Support HTTP/SMTP/POP3/FTP scan
- Wild range file type examination
- Real-time threat synchronization

IP Reputation Filter

- IP-based reputation filter
- Supports 9 Cyber Threat Categories
- Inbound & Outbound traffic filtering
- Support Block and Allow List

DNS Threat Filter

- Block clients to access malicious domain
- Block and Allow List support
- Monitoring or blocking the use of DoH/DoT

URL Threat Filter

- Botnet C&C websites blocking
- Malicious URL blocking
- Support Block and Allow List

External Block List

- Importing malicious IP/URL from external sources
- Works with IP Reputation and URL Threat Filter

Web Filtering

- HTTPs domain filtering
- DNS domain filtering
- Allow List websites enforcement
- Customizable warning messages and redirect URL
- URL categories increased to 111
- CTIRU (Counter-Terrorism Internet Referral Unit) support
- Support Block and Allow List

SSL Inspection

- Deep packet inspection for TLS
- Support inspect TLS1.3
- Support untrusted certificate blocking
- Works with IPS/Anti-Malware/ Sandboxing/Application Patrol/ Web Filtering

Device Insight

- Agentless Scanning for discovery and classification of devices
- View all devices on the network, including wired, wireless, BYOD, IoT, and SecuExtender (remote endpoint) on SecuReporter

- Visibility of network devices (switches, wireless access points, firewalls) from Zyxel or 3rd party vendors
- Visibility of networks devices from Astra Client

Geo Enforcer

- · Geo IP blocking
- Geographical visibility on logs

IP Exception

- Provides granular control for target source and destination IP
- Supports security service scan bypass for IPS, Anti-Malware and URL Threat Filter

VPN

IPSec VPN

- Route-based and Policy-based Site to Site
- Client remote access (IKEv2 MS-CHAPv2)
- IKEv2 (EAP, configuration payload)
- Encryption: DES, 3DES, AES (256-bit)
- Authentication: MD5, SHA1, SHA2 (512-bit)
- Perfect forward secrecy (DH groups) support 2, 5, 14-16, 19-21, 28-30
- PSK and PKI (X.509) certificate authentication
- IPSec NAT traversal (NAT-T)
- Dead Peer Detection (DPD) and relay detection
- NAT over IPSec
- SecuExternder VPN Client provision
- Support native Windows, iOS/macOS and Android (StrongSwan) client provision
- Support 2FA Google Authenticator/ Microsoft Authenticator

SSL VPN

- Client remote access*
- Full/Split tunnel mode
- SecuExtender VPN client provision
- Support 2FA Google Authenticator/ Microsoft Authenticator

Tailscale VPN*2

- Mesh-capable VPN
- Supports native identity providers, including Google, Microsoft Entra ID, Apple ID, etc.
- Supports Windows, Linux, Android, and iOS agents

Networking

Connection

- Routing/Transparent mode
- Ethernet and PPPoE
- NAT and PAT
- VLAN tagging (802.1Q)
- Static route
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- DHCP client/server/relay
- Dynamic DNS support
- Multi-WAN load balancing/failover (Round Robin, LLF, Split over)
- Bandwidth Management
- Link Aggregation support (LAG)

WLAN Management*2

- Supports AP Controller (APC)
- WPA3 support on 802.11ax AP
- WPA2 Enterprise (802.1x)
- 802.11r/k/v support
- Support auto AP firmware update
- Dynamic Channel Selection (DCS)
- Band steering (Band select)
- Auto healing
- Wireless L2 Isolation
- CAPWAP discovery method
- Multiple SSID with VLAN
- Supports Smart Mesh

Management

Nebula Centralized Management

- Centralized device, client, and application usage monitoring (logs and statistics)
- Cloud & on-prem security integrated with smart sync
- Security Profile Sync
- Nebula SD-VPN
- Auto-link VPN
- Manual-link VPN
- VPN Topology
- Monitor device on/off status
- Keep event log up to 1 year
- Firmware upgrade operation
- Remote SSH for accessing device GUI
- Backup and restore firewall configurations (requires Nebula Pro Pack)

Authentication

- Local user database
- External user database
- IKEv2 with EAP-MSCHAPv2 VPN authentication
- Supports 2FA authentication (Google Authenticator, Microsoft Authenticator)
- 802.1x Authentication
- Captive Portal Web Authentication

System Management

- Multi-lingual Web GUI (HTTPS and HTTP)
- Command line interface (console, SSH)
- SNMP v1, v2c, v3
- System configuration rollback
- Configuration auto backup
- Recovery Manager (one-click full backup of configuration, certificates)
- Firmware upgrade via FTP, FTP-TLS
- Firmware upgrade via Web GUI
- New firmware notifications and auto upgrade
- Dual firmware images

Logging and Monitoring

- Comprehensive local logging
- Syslog (to up to 4 servers*1)
- Event Notification and Email alerts
- Real-time traffic monitoring
- Built-in daily report
- SecuReporter supported
- *: Compatible with OpenVPN Connect *1: Up to 4 servers via CLI, default 2 servers
- *2: Local GUI only

Accessories

IPSec and SSL VPN Client

Item	Description	Supported OS
SecuExtender Zero Trust IPSec and SSL VPN Client*	SecuExtender supports popular VPN protocols including IKEv2/EAP, SSL VPN. Building secure tunnel with industry-leading strong cipher, the SecuExtender guarantees your confidentiality and data integrity.	

 $^{^{*}}$: One subscription license to activate IPSec or SSL VPN from selected OS Windows/macOS.

Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	Optical Fiber Type	DDMI
SFP10G-SR*	10-Gigabit SFP+	Duplex LC	850nm	300m/328yd	Multi mode	Yes
SFP10G-LR*	10-Gigabit SFP+	Duplex LC	1310nm	10km/10936yd	Single mode	Yes
SFP-1000T	Gigabit	RJ-45	-	100m/109yd	Multi mode	-
SFP-LX-10-D	Gigabit	LC	1310nm	10km/10936yd	Single mode	Yes
SFP-SX-D	Gigabit	LC	850nm	550m/601yd	Multi mode	Yes

^{*:} Only USG FLEX 700H supports 10-Gigabit SFP+. Please note that Direct Attach Copper (DAC) cables are not supported. For optimal performance, use compatible SFP+ optical modules.

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

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