ZyWALL USG FLEX 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 AI 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.

- Firewall/VPN/UTM ultra high performance
- Multi-gig user-definable WAN/LAN Ethernet ports with up to 10 Gbps speed
- Optional 802.3at PoE+ offers 30W per port saving you cabling costs
- New powerful uOS accelerates system response time with user friendly design
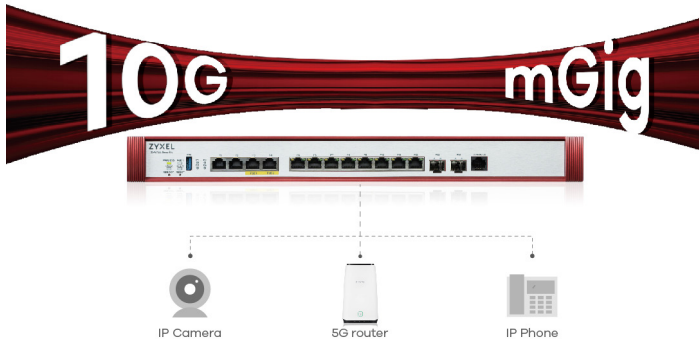- SecuExtender VPN utility now available in multiple OS platforms
- High assurance multi-layered protection against cyber threats
- DNS and URL content filter ensures web security

USG FLEX H
Secure. Fast. Protection.

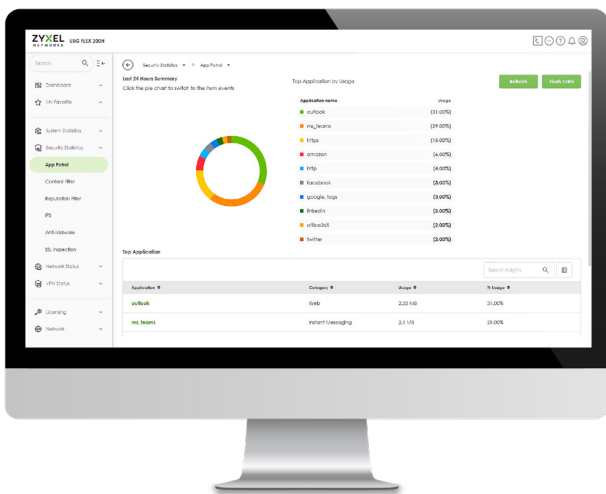Datasheet ZyWALL USG FLEX 100H/200H/500H/700H

Multi-gig with built-in PoE+

USG FLEX H series are equipped with user definable ports that ranges from 2.5 to 10 Gbps. Configure ports as WAN or LAN to best suit your needs, deploy complex wired/wireless networks with minimal effort while maintaining high flexibility. Integrated 802.3at PoE+ offers up to 30W to 5G modem, latest WiFi access points, VoIP devices, or IP cameras.


Zero trust security made easy for SMBs

USG FLEX H series is your network security ally that leverages AI security cloud to operate multi-layered protection such as anti-malware, DNS/IP/URL filtering, IPS, and application patrol. Our multiple OS supported SecuExtender easily extends the same security outside network premise to remote employees that are on the go. USG FLEX H series makes zero trust security easy for small to mid-sized business users.

New powerful fast uOS

Our newly uOS has been tuned for faster response to configurations, apply settings quicker and get faster firmware upgrades. Redesigned to be user-centric and intuitive along with simplified policy management for faster network tasks, making VPN configurations and keyword searches faster and easier!

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.
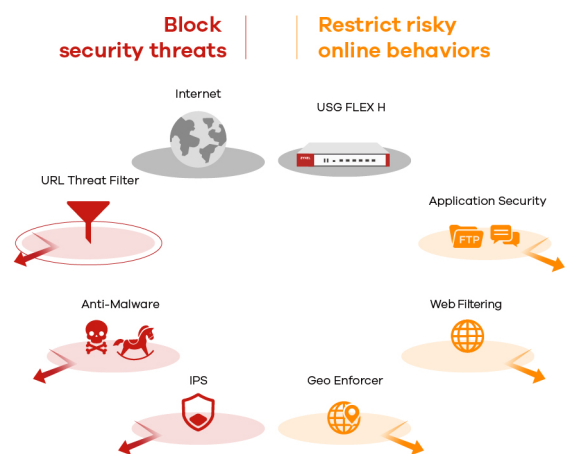
Preemptive Defense by Reputation Filter

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.
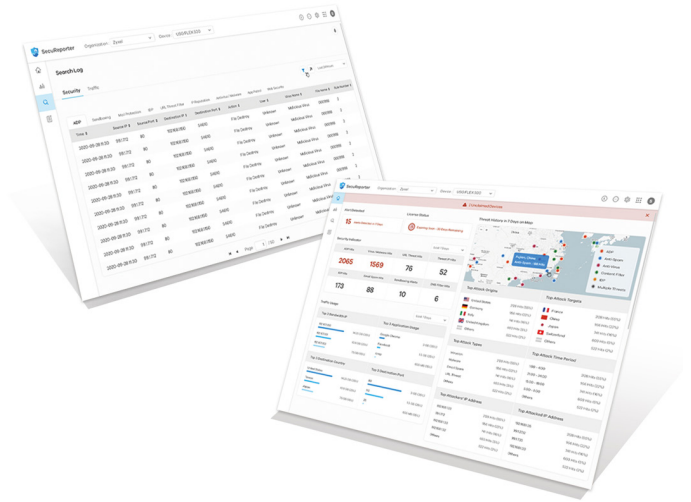
Self-evolving cloud intelligence

Zyxel cloud AI globally receives all unknown files and user patterns from other deployed firewalls. Utilizes machine learning to identify and archives inspection results to further advance our threat intelligence, pushes top-ranked threat data to all deployed USG FLEX H devices, keeping them always updated and ready to defend against growing and evolving attacks.
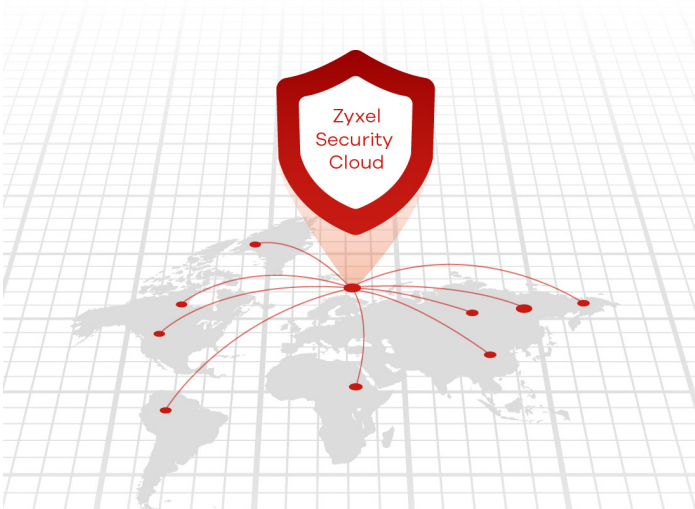
2FA levels up your network security

When passwords alone are not enough to secure a network, USG FLEX H series are all equipped with Zyxel Two-Factor Authentication that allows you to further validate an identity in your organization. Protect your company's assets and prevent unauthorized users from brute forcing their way in.

License Service

Service in Security Pack
Sandboxing*[1]
Reputation Filter*[2]
Web Filtering
Anti-Malware
IPS
Application Patrol
Device Insight*[1]
SecuReporter
Collaborative Detection & Response*[3]
Security Profile Sync*[3]
Secure WiFi*[3]
Nebula Pro Pack*[3]

*1: Available Q3 2023
*2: USG FLEX H enhances Reputation filter service with IP reputation included
*3: Available Q4 2023

Specifications

Model	USG FLEX 100H	USG FLEX 200H
Product photo		

Hardware Specifications		
WiFi Standard	-	-
Interface ports	8 x 1-GbE Ethernet	2 x 2.5-GbE Ethernet 6 x 1-GbE Ethernet
USB 3.0 ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable		Yes
Fanless	Yes	Yes
System Capacity & Performance*[1]		
SPI firewall throughput (Mbps)*[2]	3,000	5,000
VPN throughput (Mbps)*[3]	750	1,200
IPS throughput (Mbps)*[4]	1,500	2,000
Anti-Malware throughput (Mbps)*[4]	750	1,500
UTM throughput (Anti-Malware and IPS)*[4]	750	1,500
Max. TCP concurrent sessions*[5]	300,000	600,000
Max. concurrent IPsec VPN tunnels*[6]	50	100
Recommended gateway-to-gateway IPsec VPN tunnels	20	50
Concurrent SSL VPN users	25	50
VLAN interface	16	32
Max. Concurrent devices logins*[7]	64	200
Security Service*[8]		
Anti-Malware	Yes	Yes
IPS	Yes	Yes
Application Patrol	Yes	Yes
Web filtering	Yes	Yes
Reputation Filter	Yes	Yes
SecuReporter	Yes	Yes
Sandboxing*[9]	Yes	Yes
Device Insight*[9]	Yes	Yes
Secure WiFi*[10]	Yes	Yes
Security Profile Sync (SPS)*[10]	Yes	Yes
Key Features		
VPN	IKEv2, IPSec, SSL	IKEv2, IPSec, SSL
SSL (HTTPS) inspection	Yes	Yes
Two-Factor Authentication	Yes	Yes
Link Aggregation (LAG)*[10]	Yes	Yes

Model		USG FLEX 100H	USG FLEX 200H
Power Requirements			
Power input		12V DC, 2A max.	12V DC, 2A max.
Max. power consumption (Watt Max.)		17 Watt max.	22 Watt max.
Heat dissipation (BTU/hr)		40.365(BTU/hr)	58.75(BTU/hr)
Physical Specifications			
Item	**Dimensions (WxDxH) (mm/in.)**	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.)	1.039kg/2.29lbs	1.516kg/3.34lbs
Packing	**Dimensions (WxDxH) (mm/in.)**	284 x 190 x 100/ 11.18 x 7.48 x 3.94	427 x 247 x 73/ 16.81 x 9.72 x 2.87
	Weight (kg/lb.)	1.62kg/3.57lbs	2.43kg/5.36lbs
Included accessories		• Power adapter • RJ-45 - RS-232 cable for console connection	• Power adapter • RJ-45 - RS-232 cable for console connection • Rack mounting kit
Environmental Specifications			
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/ 353878.1057 hr 25°C/ 602150.9604 hr	40°C/ 306768.409 hr 25°C/ 528037.0106 hr
Acoustic Noise		18.35 dBA on full load	17.51 dBA on full load
Certifications			
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
Safety		LVD (EN62368-1), BSMI	LVD (EN62368-1), BSMI

Model	USG FLEX 500H	USG FLEX 700H
Product photo		

Hardware Specifications		
Interface ports	2 x 2.5-GbE Ethernet 2 x 2.5-GbE/PoE Ethernet (802.3at, total 30W) 8 x 1-GbE Ethernet	2 x 2.5-GbE Ethernet 2 x 10-GbE/PoE Ethernet (802.3at, total 30W) 8 x 1-GbE Ethernet 2 x 10GbE SFP+
USB 3.0 ports	1	1
Console port	Yes (RJ-45)	Yes (RJ-45)
Rack-mountable	Yes	Yes
Fanless	-	-
System Capacity & Performance*1		
SPI firewall throughput (Mbps)*2	10,000	15,000
VPN throughput (Mbps)*3	2,000	3,000
IPS throughput (Mbps)*4	3,500	6,300
Anti-Malware throughput (Mbps)*4	2,500	4,000
UTM throughput (Anti-Malware and IPS)*4	2,500	4,000
Max. TCP concurrent sessions*5	1,000,000	2,000,000
Max. concurrent IPsec VPN tunnels*6	300	1,000
Recommended gateway-to-gateway IPsec VPN tunnels	150	300
Concurrent SSL VPN users	150	500
VLAN interface	64	128
Max. Concurrent devices logins*7	300	4,000
Security Service*8		
Anti-Malware	Yes	Yes
IPS	Yes	Yes
Application Patrol	Yes	Yes
Web filtering	Yes	Yes
Reputation Filter	Yes	Yes
SecuReporter	Yes	Yes
Sandboxing*9	Yes	Yes
Device Insight*9	Yes	Yes
Secure WiFi*10	Yes	Yes
Security Profile Sync (SPS)*10	Yes	Yes
Key Features		
VPN	IKEv2, IPSec, SSL	IKEv2, IPSec, SSL
SSL (HTTPS) inspection	Yes	Yes
Two-Factor Authentication	Yes	Yes
Link Aggregation (LAG)*10	Yes	Yes

Model	USG FLEX 500H	USG FLEX 700H
Power Requirements		
Power input	19V DC, 4.736A	100-240V AC, 50/60Hz, 2A max.
Max. power consumption (Watt Max.)	68 Watt max.	86.7 Watt max.
Heat dissipation (BTU/hr)	211.3(BTU/hr)	235(BTU/hr)
PoE power budget (watt max.)	30	30
Physical Specifications		
Item — **Dimensions (WxDxH) (mm/in.)**	300 x182 x 44/ 16.93 x 7.4 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73
Weight (Kg/lb.)	1.643kg/3.62lbs	3.193kg/7.04lbs
Packing — **Dimensions (WxDxH) (mm/in.)**	351 x 152 x 245/ 13.82 x 5.98 x 9.65	519 x 392 x 163/ 20.43 x 15.43 x 6.42
Weight (kg/lb.)	2.93kg/6.46lbs	4.90kg/10.81lbs
Included accessories	• Power adapter & Power cord • RJ-45 - RS-232 cable for console connection • Rack mounting kit	• Power cord • RJ-45 - RS-232 cable for console connection • Rack mounting kit
Environmental Specifications		
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 < 25degC Operating Temperature, 43.76dBA on full FAN speed	16.85dBA on < 25degC 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

*: This matrix with firmware uOS1.10 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 RFC 2544 (1,424-byte UDP packets); IMIX: UDP throughput based on a combination of 64 byte, 512 byte, and 1424 byte packet sizes.
*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: This is the recommend maximum number of concurrent logged-in devices.
*8: With Zyxel service license to enable or extend the feature capacity.
*9: Available in Q3, 2023
*10: Available in Q4, 2023

Software Features

Security Service

Firewall
- Routing and transparent (bridge) modes
- Stateful packet inspection
- FTP NAT traversal
- ALG support for customized ports
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection

Unified 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)
- Support both intrusion detection and prevention
- Support allow list (whitelist) to deal with false positives involving known benign activity
- Signature-based scanning
- Support exploit-based and vulnerability-based protection
- Support Web attacks like XSS and SQL injection
- Streamed-based engine
- Support SSL inspection (TLS1.2)
- 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
- Prioritize and throttle application
- Real-time application statistics and reports
- Identify and control the use of DoH (DNS over HTTPS)

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

Anti-Malware
- High performance query-based scan engine (Express Mode)
- Works with over 30 billion of known malicious file identifiers and still growing
- Multiple file types supported
- No file size limitation
- HTTP, FTP, SMTP, and POP3 protocol supported
- SSL inspection support (TLS1.2)

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

DNS Threat Filter
- Block clients to access malicious domain

URL Threat Filter
- Botnet C&C websites blocking
- Malicious URL blocking

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

Geo Enforcer
- Geo IP blocking
- Geographical visibility on traffics statistics and logs
- SSL inspection support (TLS1.2)

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
- Key management:
IKEv1 (x-auth, mode-config),
IKEv2 (EAP, configuration payload)
- Encryption: DES, 3DES, AES (256-bit)
- Authentication: MD5, SHA1, SHA2 (512-bit)
- Perfect forward secrecy (DH groups) support 1, 2, 5, 14, 15-18, 20-21
- PSK and PKI (X.509) certificate support
- IPSec NAT traversal (NAT-T)
- Dead Peer Detection (DPD) and relay detection
- Route-based VPN Tunnel Interface (VTI)
- SecuExtender Zero Trust VPN Client
- Support native Windows, iOS/macOS and Android (StrongSwan) client provision
- Support 2FA Google Authenticator

Networking

Connection
- Routing mode
- Bridge mode and hybrid mode
- Ethernet and PPPoE
- NAT and PAT
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- DHCP client/server/relay
- Dynamic DNS support
- WAN trunk for more than 2 ports
- Per host session limit
- Link Aggregation support*
- *: Supported models USG FLEX 500H/700H

Management

Authentication
- Local user database
- External user database: Microsoft Windows Active Directory, RADIUS, LDAP
- XAUTH, IKEv2 with EAP VPN authentication
- Supports 2-factor authentication Google Authenticator

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

Software Features

Management

Logging and Monitoring
- Comprehensive local logging
- Syslog (to up to 4 servers)
- Email alerts (to up to 2 servers)
- Real-time traffic monitoring
- Built-in daily report
- SecuReporter supported

Accessories

Secure Tunnel for Remote AP

Item	Description	Supported OS
SecuExtender VPN Client*¹	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.	• Windows 10 64-bit • macOS 10.15 or above

*1: 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	850 nm	300 m/ 328 yd	Multi Mode	Yes
SFP10G-LR*	10-Gigabit SFP+	Duplex LC	1310 nm	10 km/ 10936 yd	Single Mod	Yes
SFP-1000T	Gigabit	RJ-45	-	100 m/ 109 yd	Multi Mode	-
SFP-LX-10-D	Gigabit	LC	1310 nm	10 km/ 10936 yd	Single Mode	Yes
SFP-SX-D	Gigabit	LC	850nm	550 m/ 601 yd	Multi Mode	Yes

*: only USG FLEX 700H supports 10-Gigabit SFP+