



# ZyWALL USG FLEX 100/200/500

## USG FLEX Firewall

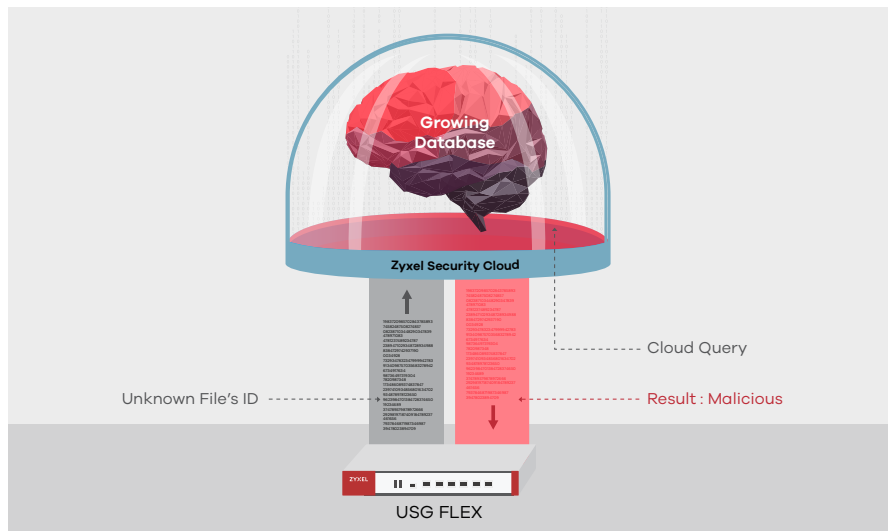
### Precise protection. Flexible subscription.

Introducing the latest USG Series-USG FLEX, delivering higher levels of performance and flexibility! USG FLEX's platform continue its tradition in providing the latest, leading technologies, all while providing a complete suite of security subscription with seamless, scalable gateway connectivity. We want to bring top of the line experience for all business owners!

### Benefits

#### Higher precision detection uncovers threats

Zyxel Security Cloud keeps learning from collecting threat information. USG FLEX series supports advanced Anti-Malware with cloud query express mode which expands billions of signatures. The cloud query with high detection rate helps verify the file hash within seconds.



Precise detection with cloud query express mode



High assurance multi-layered protection



Boosts up to 125% firewall performance and 500% UTM performance



Flexible subscription options for your security needs



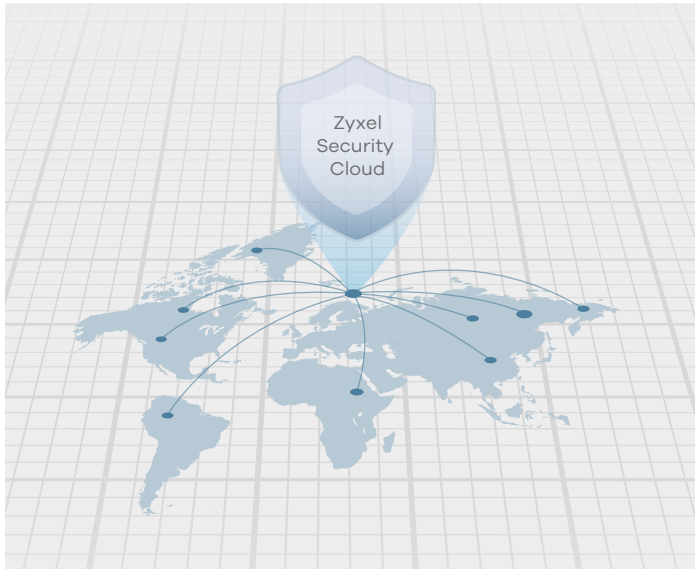
Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN high availability (HA)



Enabled hospitality features with hotspot, AP management, and concurrent device upgrades

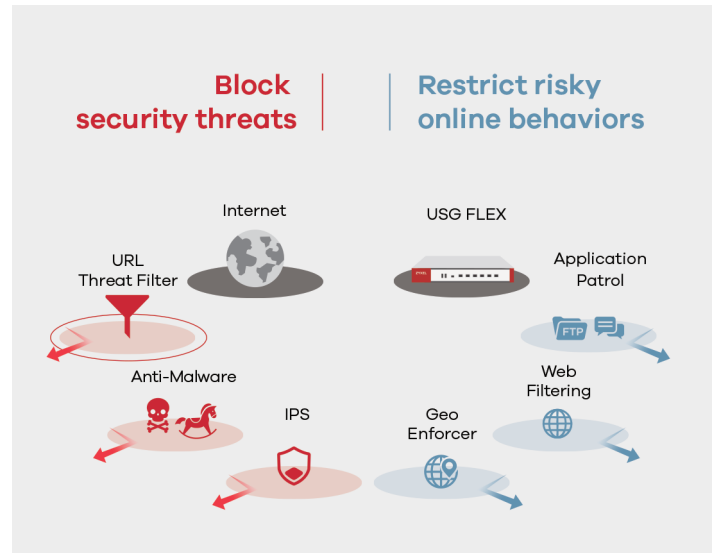
## Best threat intelligence alliance

To ensure your network on getting the best protection, USG FLEX integrates threat intelligence from leading companies and organizations in the cybersecurity field for scaled information about file and real-time threat data. By leveraging a wider malware coverage with multiple-sourced database, this increases the accuracy in threat detection. Web Filtering is also included to safeguard all internet access, especially with CTIRU (Counter-Terrorism Internet Referral Unit) to restrict access to terrorist materials online.



## High assurance multi-layered protection

USG FLEX is designed with multi-layer protection against multiple types of threats from in and out. Anti-Malware, URL Threat Filter, and Intrusion Prevention block external attacks, while Application Patrol and Web Filtering empower you to restrict users' inappropriate application usage or web access, all together safeguarding your network without any unattended gaps.



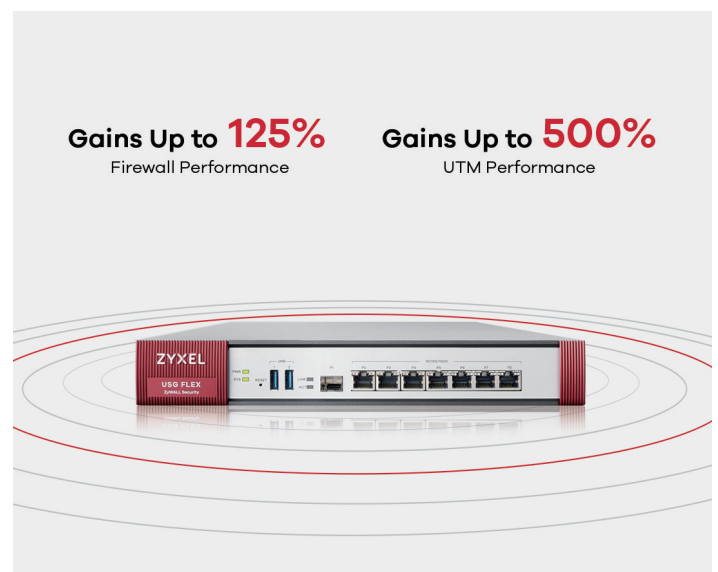
## Flexible subscription for your need

USG FLEX security services turn your firewall into a comprehensive security solution. Add Unified Threat Management (UTM) and Hospitality bundled service to get the protection and connectivity that meet your network needs. You can also choose from a single license whenever you need, such as Web Filtering, Anti-Malware, SecuReporter Premium, and more.



## Performance boost

The newly designed platform gains up to 125% firewall performance. Maximizes UTM performance by minimizing computing power usage and get additional 500% UTM performance with cloud query express mode.



## Analytics report and enhanced insights

USG FLEX series dashboard gives user-friendly traffic summary and threat statistic visuals. Utilize SecuReporter for further threat analysis with correlation feature design, making it easy to proactively trackback network status to prevent the next threat event. Centralized visibility of network activities for you to easily manage multiple clients.

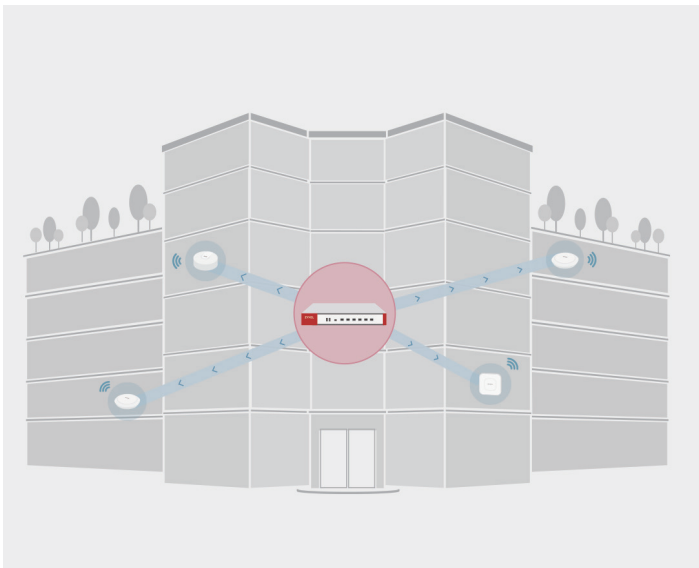


## Comprehensive connectivity

ZyWALL USG FLEX series not only can protect your network, but it also support Hospitality features including Hotspot, AP management, and concurrent device upgrade. You can buy time-based bundle or quantity-based license to optimize your initial investment and maximize the scale in your environment.

## Work Remotely and securely

As demands for remote access and work from home has increased, USG FLEX offers IPsec, SSL or L2TP based VPNs to provide flexible secure network options for many of the common operating systems. Zero-configuration remote access reduces complicated setup challenges. USG FLEX series is also validated by Microsoft Azure and AWS for SMB convenience by using a combination of onsite and cloud-based infrastructure with hybrid networks.



## Licenses and Services

License Service	Included Bundled License	Renewal Bundled License	À -la-carte License
<b>UTM License</b>			
Web Filtering	Yes	Yes	Yes* <sup>1</sup>
IPS (IDP)	Yes	Yes	
Application Patrol	Yes	Yes	
Anti-Malware	Yes	Yes	Yes
Email Security	Yes	Yes	
SecuReporter	Yes		
SecuReporter Premium		Yes	Yes
<b>Hospitality License</b>			
Managed AP Service	Yes (30-Day Trial)	Yes (1 Year)	Yes (Qty based)
Hotspot Management* <sup>2</sup>	Yes (30-Day Trial)	Yes (1 Year)	Yes (Perpetual)
Concurrent device	Yes (30-Day Trial)	Yes (1 Year)	Yes (Qty based)* <sup>3</sup>




\*1: Will include Email Security license service

\*2: Hotspot Management is available on USG FLEX 200/500 only

\*3: Allowing additional connected clients is available to USG FLEX 500 only

License Service	Feature
<b>UTM License</b>	
Web Filtering	Block access to malicious or risky web sites
IPS(IDP)	Deep-packet inspection against known attacks from Network
Application Patrol	Automatically categorize and manage the network application usage
Anti-Malware	Scan files at the gateway or Zyxel security cloud for malware and other threats
Email Security	Fast detection to block spam/phishing mail with malicious contents
SecuReporter	Cloud-based intelligent analytics and report
<b>Hospitality License</b>	
Managed AP Service	AP auto discovery and provisioning
Hotspot Management	Various Network Access Control
Concurrent device	Top up allowed number of connected clients

# Specifications

Model	USG FLEX 100	USG FLEX 200	USG FLEX 500
Product photo			
<b>Hardware Specifications</b>			
10/100/1000 Mbps RJ-45 ports	4 x LAN/DMZ, 1 x WAN, 1 x SFP	4 x LAN/DMZ, 2 x WAN, 1 x SFP	7 x (Configurable), 1 x SFP
USB3.0 ports	1	2	2
Console port	Yes (RJ-45)	Yes (DB9)	Yes (DB9)
Rack-mountable	-	Yes	Yes
Fanless	Yes	Yes	-
<b>System Capacity &amp; Performance<sup>1</sup></b>			
SPI firewall throughput (Mbps) <sup>2</sup>	900	1,800	2,300
VPN throughput (Mbps) <sup>3</sup>	270	450	810
IDP throughput (Mbps) <sup>4</sup>	540	1,100	1,150
AV throughput (Mbps) <sup>4</sup>	360	570	800
UTM throughput (AV and IDP) <sup>4</sup>	360	550	800
Max. TCP concurrent sessions <sup>5</sup>	300,000	600,000	1,000,000
Max. concurrent IPsec VPN tunnels <sup>6</sup>	40	100	300
Concurrent SSL VPN users	30	60	150
VLAN interface	8	16	64
Concurrent devices logins (default/max.) <sup>7*8</sup>	64	200	200 / 300
<b>Speedtest Performance</b>			
SPI firewall throughput (Mbps) <sup>11</sup>	760	810	810
<b>WLAN Management</b>			
Managed AP number (default/max.) <sup>17</sup>	8 / 24	8 / 40	8 / 72
Recommend max. AP in 1 AP Group	10	20	60
<b>Security Service</b>			
Anti-Malware <sup>17</sup>	Yes	Yes	Yes
IPS (IDP)	Yes	Yes	Yes
Application Patrol <sup>17</sup>	Yes	Yes	Yes
Email Security	Yes	Yes	Yes
Web filtering (CF) <sup>17*9</sup>	Yes	Yes	Yes
SecuReporter Premium <sup>17</sup>	Yes	Yes	Yes
<b>Key Features</b>			
VPN	IKEv2, IPSec, SSL, L2TP/ IPSec	IKEv2, IPSec, SSL, L2TP/ IPSec	IKEv2, IPSec, SSL, L2TP/ IPSec
SSL (HTTPS) inspection	Yes	Yes	Yes
2-Factor Authentication	Yes	Yes	Yes
Hotspot Management <sup>17</sup>	-	Yes	Yes
Ticket printer support <sup>10</sup> / Support Q'ty (max.)	-	Yes (SP350E) / 10	Yes (SP350E) / 10
Microsoft Azure	Yes	Yes	Yes
Amazon VPC	Yes	Yes	Yes
Device HA Pro	-	-	Yes

Model	USG FLEX 100	USG FLEX 200	USG FLEX 500	
<b>Power Requirements</b>				
<b>Power input</b>	12V DC, 2A max.	12V DC, 2.5A max.	12V DC, 4.17A max.	
<b>Max. power consumption (Watt Max.)</b>	12.5	13.3	24.1	
<b>Heat dissipation (BTU/hr)</b>	42.65	45.38	82.23	
<b>Physical Specifications</b>				
<b>Item</b>	<b>Dimensions (WxDxH) (mm/in.)</b>	216 x 147.3 x 33/ 8.50 x 5.80 x 1.30	272 x 187 x 36/ 10.7 x 7.36 x 1.42	300 x 188 x 44/ 16.93 x 7.4 x 1.73
	<b>Weight (Kg/lb.)</b>	0.85/1.87	1.4/3.09	1.65/3.64
<b>Packing</b>	<b>Dimensions (WxDxH) (mm/in.)</b>	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	351 x 152 x 245/ 13.82 x 5.98 x 9.65
	<b>Weight (kg/lb.)</b>	1.40/3.09	2.23 (W/O bracket) 2.42 (W/ bracket)	2.83/6.24
	<b>Included accessories</b>	<ul style="list-style-type: none"> <li>• Power adapter</li> <li>• RJ-45 - RS-232 cable for console connection</li> </ul>	<ul style="list-style-type: none"> <li>• Power adapter</li> <li>• Rack mounting kit (optional, by regions)</li> </ul>	<ul style="list-style-type: none"> <li>• Power adapter</li> <li>• Power cord</li> <li>• Rack mounting kit</li> </ul>
<b>Environmental Specifications</b>				
<b>Operating</b>	<b>Temperature</b>	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)
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>Storage</b>	<b>Temperature</b>	-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)
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>MTBF (hr)</b>	989810.8	529688.2	529688.2	
<b>Acoustic Noise</b>	-	-	24.5dBA on < 25degC Operating Temperature, 41.5dBA on full FAN speed	
<b>Certifications</b>				
<b>EMC</b>	FCC Part 15 (Class B), CE EMC (Class B),BSMI	FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	FCC Part 15 (Class A), CE EMC (Class A), C-Tick (Class A), BSMI	
<b>Safety</b>	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	LVD (EN60950-1), BSMI	

\*: This matrix with firmware ZLD4.50 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 measured based on RFC 2544 (1,424-byte UDP packets).

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

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

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

\*7: With Zyxel service license to enable or extend the feature capacity.

\*8: This is the recommend maximum number of concurrent logged-in devices.

\*9: SafeSearch function in CF need to enable SSL inspection firstly and not for small business models.

\*10: With Hotspot Management license support

\*11: 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.

# Access Point Compatibility List

Product	Unified AP	Unified Pro AP	
<b>Models</b>	<ul style="list-style-type: none"> <li>• NWA5121-N</li> <li>• NWA5121-NI</li> <li>• NWA5123-AC</li> <li>• NWA5123-AC HD</li> <li>• NWA5123-NI</li> </ul>	<ul style="list-style-type: none"> <li>• NWA5301-NJ</li> <li>• WAC5302D-S</li> <li>• WAX510D*</li> </ul>	<ul style="list-style-type: none"> <li>• WAC6103D-I</li> <li>• WAC6303D-S</li> <li>• WAC6502D-E</li> <li>• WAC6502D-S</li> <li>• WAC6503D-S</li> </ul>
<b>Functions</b>			
<b>Central management</b>	Yes	Yes	
<b>Auto provisioning</b>	Yes	Yes	
<b>Data forwarding</b>	Local bridge	Local bridge/Data tunnel	
<b>ZyMesh</b>	Yes	Yes	

\*: From APC3.0, commercial gateways supporting APC technology are able to recognize APs with FW release higher than APC3.0 as Forward Compatible APs. Resellers can introduce newly-available Zyxel APs with basic features supported without upgrading any new controller firmware.

## Software Features

### Security Service

#### Firewall

- ICSA-certified corporate firewall
- Routing and transparent (bridge) modes
- Stateful packet inspection
- User-aware policy enforcement
- SIP/H.323 NAT traversal
- ALG support for customized ports
- Protocol anomaly detection and protection
- Traffic anomaly detection and protection
- Flooding detection and protection
- DoS/DDoS protection

#### Unified Security Policy

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

#### IPS(IDP)

- Routing and transparent (bridge) mode
- Signature-based and behavior based scanning
- Customized signatures supported
- Automatic signature updates

#### Application Patrol

- Granular control over the most important applications
- Identifies and controls application behavior
- Supports 30+ application categories
- Supports user authentication
- Real-time statistics and reports

#### Anti-Malware

- Support Stream-based scan engine and Express mode for cloud query
- No file size limitation
- Works with local cache for stream mode
- Express mode support over 30 billion cloud databases and growing
- HTTP(s), FTP(s), SMTP(s), POP3(s) protocol support
- Automatic signature updates
- Multiple file types supported

#### E-mail Security

- Transparent mail interception via SMTP and POP3 protocols
- Spam and Phishing mail detection
- Blacklist and whitelist support
- Supports DNSBL checking

#### URL Threat Filter

- Botnet C&C websites blocking
- Malicious URL blocking

#### Content Filtering

- HTTPs domain filtering
- SafeSearch support
- Whitelist websites enforcement
- URL blacklist and whitelist, keyword blocking support
- Customizable warning messages and redirection URL
- URL categories increased to 100+
- CTIRU (Counter-Terrorism Internet Referral Unit) support\*<sup>1</sup>
- Geo IP blocking
- Geographical visibility on traffics statistics and logs
- IPv6 address support

#### IP Exception

- Provides granular control for target source and destination IP
- Supports security service scan bypass for IDP and Anti-Malware

#### 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
- PSK and PKI (X.509) certificate support
- IPSec NAT traversal (NAT-T)
- Dead Peer Detection (DPD) and relay detection
- VPN concentrator
- Route-based VPN Tunnel Interface (VTI)
- VPN high availability (Failover, LB)
- GRE over IPSec
- NAT over IPSec
- L2TP over IPSec
- Zyxel VPN client provisioning
- Support iOS L2TP/IKE/IKEv2 VPN client provision

##### SSL VPN

- Supports Windows and Mac OS X
- Supports full tunnel mode
- Supports 2-Factor authentication

## Networking

### WLAN Management

- Support AP Controller (APC) version 3.40
- 802.11k/v/r support for wave 2 11ac AP
- Wireless L2 isolation
- Supports auto AP FW update
- Scheduled WiFi service
- Dynamic Channel Selection (DCS)
- Client steering for 5 GHz priority and sticky client prevention
- Auto healing
- Customizable captive portal page
- WiFi Multimedia (WMM) wireless QoS
- CAPWAP discovery protocol
- Multiple SSID with VLAN
- Supports ZyMesh
- Support AP forward compatibility
- Rogue AP Detection

### Mobile Broadband

- WAN connection failover via 3G and 4G\*2 USB modems
- Auto fallback when primary WAN recovers

### IPv6 Support

- Dual stack
- IPv4 tunneling (6rd and 6to4 transition tunnel)
- SLAAC, static IP address
- DNS, DHCPv6 server/client
- Static/Policy route
- IPSec (IKEv2 6in6, 4in6, 6in4)

## Connection

- Routing mode, bridge mode and hybrid mode
- Ethernet and PPPoE
- NAT and PAT
- VLAN tagging (802.1Q)
- Virtual interface (alias interface)
- Policy-based routing (user-aware)
- Policy-based NAT (SNAT)
- GRE
- Dynamic routing (RIPv1/v2 and OSPF, BGP)
- DHCP client/server/relay
- Dynamic DNS support
- WAN trunk for more than 2 ports
- Per host session limit
- Guaranteed bandwidth
- Maximum bandwidth
- Priority-bandwidth utilization
- Bandwidth limit per user
- Bandwidth limit per IP
- Bandwidth management by application

## Management

### Authentication

- Local user database
- External user database: Microsoft Windows Active Directory, RADIUS, LDAP
- IEEE 802.1x authentication
- Captive portal Web authentication
- XAUTH, IKEv2 with EAP VPN authentication

- IP-MAC address binding
- SSO (Single Sign-On) support
- Supports 2-step authentication for administrator

### System Management

- Role-based administration
- Multi-lingual Web GUI (HTTPS and HTTP)
- Command line interface (console, web console, SSH and telnet)
- SNMP v1, v2c, v3
- System configuration rollback
- Firmware upgrade via FTP, FTP-TLS and Web GUI
- New firmware notify and auto upgrade
- Dual firmware images
- Cloud CNM SecuManager

### 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
- Cloud CNM SecuReporter

\*1 Available in June 2020

\*2 For specific models supporting the 3G and 4G dongles on the list, please refer to the Zyxel product page at 3G dongle document.

For more product information, visit us on the web at [www.zyxel.com](http://www.zyxel.com)

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Datasheet ZyWALL USG FLEX 100/200/500



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