

HUAWEI HiSecEngine USG6000E Series Firewalls Matrix

Model	USG6510E	USG6530E
Firewall Throughput ¹ (1518/512/64-byte, UDP)	1.2/1.2/1.2 Gbit/s	4/4/4 Gbit/s
IPv6 Firewall Throughput ¹ (1518/512/84-byte, UDP)	1.2/1.2/1 Gbit/s	4/4/1.2 Gbit/s
Firewall Throughput (Packets Per Second)	1.8 Mpps	6 Mpps
Firewall Latency (64-byte, UDP)	15 μs	18 μs
FW + SA* Throughput ²	0.75 Gbit/s	2 Gbit/s
FW + SA + IPS Throughput ²	0.6 Gbit/s	1.5 Gbit/s
FW + SA + IPS + Antivirus Throughput ²	0.6 Gbit/s	1.5 Gbit/s
Full protection Throughput ³	0.45 Gbit/s	1.1 Gbit/s
Full protection Throughput (Realworld) ⁴	0.3 Gbit/s	0.6 Gbit/s
Concurrent Sessions (HTTP1.1) ¹	300,000	500,000
New Sessions/Second (HTTP1.1) ¹	20,000	30,000
IPsec VPN Throughput ¹ (AES-256 + SHA256, 1420-byte)	1 Gbit/s	3 Gbit/s
Maximum IPsec VPN Tunnels (GW to GW)	1000	2000
Maximum IPsec VPN Tunnels (Client to GW)	1000	2000
SSL Inspection Throughput ⁵	200 Mbit/s	300 Mbit/s
SSL VPN Throughput ⁶	200 Mbit/s	300 Mbit/s
Concurrent SSL VPN Users *(Default/Maximum)	100/100	100/500
Security Policies (Maximum)	1000	3000
Virtual Firewalls	10	20
Form Factor/Height	Desktop	Desktop
Fixed Interfaces	2 x GE (SFP) + 10 x GE	2 x 10GE (SFP+) + 10 x GE
External Storage	Optional, Micro-SD card supported, 64 GB/128 GB	
Power Supplies	External power adapter	

Model	USG6525E	USG6555E	USG6565E	USG6585E
Firewall Throughput ¹ (1518/512/64-byte, UDP)	2/2/2 Gbit/s	4/4/4 Gbit/s	6/6/4 Gbit/s	9/8/4 Gbit/s
IPv6 Firewall Throughput ¹ (1518/512/84-byte, UDP)	2/2/1.5 Gbit/s	4/4/1.6 Gbit/s	6/6/1.6 Gbit/s	8/8/1.6 Gbit/s
Firewall Throughput (Packets Per Second)	3 Mpps	6 Mpps	6 Mpps	6 Mpps
Firewall Latency (64-byte, UDP)	18 μs	18 μs	18 μs	18 μs
FW + SA* Throughput ²	2 Gbit/s	2.5 Gbit/s	3 Gbit/s	3 Gbit/s
FW + SA + IPS Throughput ²	1.5 Gbit/s	2.1 Gbit/s	2.2 Gbit/s	2.2 Gbit/s
FW + SA + IPS + Antivirus Throughput ²	1.5 Gbit/s	2.0 Gbit/s	2.2 Gbit/s	2.2 Gbit/s
Full protection Throughput ³	1.1 Gbit/s	1.6 Gbit/s	1.7 Gbit/s	1.8 Gbit/s
Full protection Throughput (Realworld) ⁴	0.6 Gbit/s	0.8 Gbit/s	0.9 Gbit/s	1 Gbit/s
Concurrent Sessions (HTTP1.1) ¹	3,000,000	4,000,000	4,000,000	4,000,000
New Sessions/Second (HTTP1.1) ¹	70,000	78,000	80,000	80,000
IPsec VPN Throughput ¹ (AES-256 + SHA256, 1420-byte)	2 Gbit/s	4 Gbit/s	6 Gbit/s	6 Gbit/s
Maximum IPsec VPN Tunnels (GW to GW)	4000	4000	4000	4000
Maximum IPsec VPN Tunnels (Client to GW)	4000	4000	4000	4000
SSL Inspection Throughput ⁵	300 Mbit/s	450 Mbit/s	500 Mbit/s	550 Mbit/s
SSL VPN Throughput ⁶	300 Mbit/s	450 Mbit/s	480 Mbit/s	500 Mbit/s
Concurrent SSL VPN Users *(Default/Maximum)	100/500	100/1000	100/1000	100/1000
Security Policies (Maximum)	15,000	15,000	15,000	15,000
Virtual Firewalls	50	100	100	100
Form Factor/Height	1 U	1 U	1 U	1 U
Fixed Interfaces	2 x 10GE (SFP+) + 8 x GE Combo + 2 x GE WAN			
External Storage	Optional, SSD (M.2) card supported, 64 GB/240 GB	Optional, SSD (M.2) card supported, 240 GB		
Power Supplies	Single AC power supply; optional dual AC power supplies			

Model	USG6615E	USG6625E	USG6635E	USG6655E
Firewall Throughput ¹ (1518/512/64-byte, UDP)	12/12/12 Gbit/s	20/20/20 Gbit/s	30/30/30 Gbit/s	40/40/38 Gbit/s
IPv6 Firewall Throughput ¹ (1518/512/84-byte, UDP)	10/10/4 Gbit/s	20/20/4 Gbit/s	30/30/8 Gbit/s	40/33/8 Gbit/s
Firewall Throughput (Packets Per Second)	15 Mpps	30M pps	45 Mpps	57 Mpps
Firewall Latency (64-byte, UDP)	15 μs	15 μs	15 μs	15 μs
FW + SA* Throughput ²	12 Gbit/s	12 Gbit/s	17 Gbit/s	18 Gbit/s
FW + SA + IPS Throughput ²	10 Gbit/s	10 Gbit/s	13 Gbit/s	15 Gbit/s
FW + SA + IPS + Antivirus Throughput ²	10 Gbit/s	10 Gbit/s	12 Gbit/s	14 Gbit/s
Full protection Throughput ³	7.2 Gbit/s	7.2 Gbit/s	10 Gbit/s	11 Gbit/s
Full protection Throughput (Realworld) ⁴	4.8 Gbit/s	4.8 Gbit/s	6 Gbit/s	6 Gbit/s
Concurrent Sessions (HTTP1.1) ¹	6,000,000	8,000,000	12,000,000	12,000,000
New Sessions/Second (HTTP1.1) ¹	200,000	200,000	400,000	400,000
IPsec VPN Throughput ¹ (AES-256 + SHA256, 1420-byte)	10 Gbit/s	15 Gbit/s	20 Gbit/s	30 Gbit/s
Maximum IPsec VPN Tunnels (GW to GW)	8000	8000	15000	15000
Maximum IPsec VPN Tunnels (Client to GW)	8000	8000	15000	15000
SSL Inspection Throughput ⁵	3 Gbit/s	3 Gbit/s	6 Gbit/s	6 Gbit/s
SSL VPN Throughput ⁶	1 Gbit/s	1.5 Gbit/s	2.8 Gbit/s	3 Gbit/s
Concurrent SSL VPN Users *(Default/Maximum)	100/2000	100/2000	100/5000	100/5000
Security Policies (Maximum)	40,000	40,000	40,000	40,000
Virtual Firewalls	200	500	500	1000
Form Factor/Height	1U	1U	1 U	1 U
Fixed Interfaces	6 x 10GE (SFP+) + 6 x GE (SFP) + 16 x GE		2 x 40GE (QSFP+) + 12 x 10GE (SFP+) + 16 x GE ⁷	
External Storage	Optional, SSD (1 x 2.5 inch) supported, 240 GB/HDD 1TB			
Power Supplies	Optional dual AC power supplies		Dual AC power supplies	

1. Performance is tested under ideal conditions based on RFC2544, 3511. The actual result may vary with deployment environments.

2. Antivirus, IPS, and SA performances are measured using 100 KB HTTP files.

3. Full protection throughput is measured with Firewall, SA, IPS, Antivirus and URL enabled, Antivirus, IPS, and SA performances are measured using 100 KB HTTP files.

4. Full protection throughput is measured with Firewall, SA, IPS and Antivirus enabled, Enterprise Mix Traffic Model.

5. SSL inspection throughput is measured with IPS-enabled and HTTPS traffic using TLS v1.2 with AES128-GCM-SHA256.

6. SSL VPN throughput is measured using TLS v1.2 with AES128-SHA.

7. Some 10G ports and 40G ports are mutually exclusive. The ports can be configured as follows: 2 x 40GE (QSFP+) + 8 x 10GE (SFP+) + 16 x GE (RJ45) + 1 x USB or 1 x 40GE (QSFP+) + 12 x 10GE (SFP+) + 16 x GE (RJ45) + 1 x USB.

*SA: Service Awareness.

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