Fortinet FG-120G

Datasheet

Product Overview

- The Fortinet FortiGate-120G is an advanced network firewall designed to deliver superior protection and performance.

- It features 18 GE RJ45 ports, 8 GE SFP slots, and 4 10GE SFP+ slots, providing versatile connectivity options.

- With SP5 hardware acceleration, it supports lightning-fast processing, while dual AC power supplies ensure reliable operation in demanding environments.

- This series ensures compliance with national security

- Additionally, the RG-EG3250 is managed via Ruijie Cloud, providing centralized device monitoring, configuration, and firmware management.

- The FortiGate-120G integrates Fortinet's Security Fabric technology, offering end-to-end threat protection from the network layer to the application layer, including intrusion prevention, malware detection, and content filtering, ensuring robust defense against various attacks.

Product Highlights

- **High Connectivity:** 18x GE RJ45 ports (1 MGMT, 1 HA, 16 Switch), 8x GE SFP slots, and 4x 10GE SFP+ slots.

- **Enhanced Performance:** SP5 hardware acceleration.

- **Reliability:** Dual AC power supplies.

- **Security:** Comprehensive security features for enterprise networks, data centers, and branch offices.

- **Cost-effective:** FortiGate-120G is designed with advanced features suitable for small to medium-sized businesses.

- **Ease of Management**: Simplified network management with an intuitive interface and centralized control, making it easy for IT teams to monitor and secure the network.

Detailed Features

FG-120G

Component	Specification
GE RJ45 Ports	18 (1 MGMT, 1 HA, 16 Switch)
GE SFP Slots	8
10GE SFP+ Slots	4
Power Supply	Dual AC
Hardware Acceleration	SP5

Port Configuration

The FG-120G offers versatile port options, including 18 GE RJ45 ports with 1 management port, 1 HA port, and 16 switch ports. It also provides 8 GE SFP slots for flexible uplink options and 4 10GE SFP+ slots for high-speed connectivity.

Performance and Reliability

Equipped with SP5 hardware acceleration, the device boosts data processing and throughput. Dual AC power supplies enhance reliability and reduce downtime risk.

Management and Configuration

In FortiLink mode with FortiGate, the FG-120G simplifies network setup through auto-discovery and centralized VLAN configuration. Dynamic port profiles optimize port management and FortiLink secure fabric enhances security. The device also supports VXLAN management for extended networks.

Security and Visibility

Security features include 802.1X authentication for port and MAC-based control, DHCP snooping to prevent malicious servers, and FortiGuard IoT identification for managing IoT devices. Integrated NAC enhances security, while host quarantine isolates suspicious devices. Policy control helps manage user and device policies.

Layer 3 Capabilities

The FG-120G supports dynamic routing protocols like OSPFv2 and RIPv2, DHCP server and relay for flexible IP management, and hardware-based static routing. Unicast reverse path forwarding enhances security.

Layer 2 Capabilities

Enhanced switching features of the FG-120G include IEEE 802.1Q VLAN tagging, which supports VLAN tagging for network segmentation, and link aggregation with LACP, allowing for the bundling of multiple ports to increase bandwidth. It also incorporates spanning tree protocols such as MSTP, RSTP, and standard STP to prevent loops and manage network topology efficiently. Additionally, the device supports private VLANs and MAC-based VLANs, providing advanced VLAN configurations to enhance network security and segmentation.

Quality of Service (QoS)

The FG-120G manages Quality of Service (QoS) through priority queuing and rate control. It utilizes IEEE 802.1p-based priority queuing to ensure that critical traffic is prioritized, and further refines traffic prioritization based on IP TOS/DSCP settings.

High Availability

The device supports active-active link aggregation for high availability and FortiLink in HA clusters to ensure continuous operation.

Management Interfaces

User-friendly management interfaces include CLI and WebGUI. Configuration and monitoring can be performed via HTTP REST APIs. The device also supports SNMP and Syslog for network monitoring and logging.The FG-120G is ideal for enterprise networks, data centers, and branch offices, offering robust performance, comprehensive security, and versatile management capabilities.

Technical Specifications

Hardware Specifications

Feature	Value
Hardware Accelerated GE RJ45 Ports	16
Hardware Accelerated GE RJ45 Management/HA Ports	2
Hardware Accelerated GE SFP Slots	8
Hardware Accelerated 10GE SFP+ FortiLink Slots (default)	4
USB Ports	1
Console (RJ45) Port	1

Feature	Value
Internal Storage	None
Trusted Platform Module (TPM)	Yes
Bluetooth Low Energy (BLE)	Yes

System Performance

Metric	Value
NGFW Throughput	3.1 Gbps
Threat Protection Throughput	2.8 Gbps
Firewall Throughput (1518/512/64 byte UDP packets)	39/39/28 Gbps
Firewall Latency (64 byte UDP packets)	3.17 µs
Firewall Throughput (Packets Per Second)	42 Mpps
Concurrent Sessions (TCP)	3M
New Sessions/Second (TCP)	140,000
Firewall Policies	10,000
IPsec VPN Throughput (512 byte)	35 Gbps
Gateway-to-Gateway IPsec VPN Tunnels	2,000
Client-to-Gateway IPsec VPN Tunnels	16,000
SSL-VPN Throughput	1.5 Gbps
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	500
SSL Inspection Throughput (IPS, avg. HTTPS)	3 Gbps
SSL Inspection CPS (IPS, avg. HTTPS)	2,100
SSL Inspection Concurrent Session (IPS, avg. HTTPS)	315,000
Application Control Throughput (HTTP 64K)	6.7 Gbps
CAPWAP Throughput (HTTP 64K)	35 Gbps
Virtual Domains (Default/Maximum)	10/10
Maximum Number of FortiSwitches Supported	32

Metric	Value
Maximum Number of FortiAPs (Total/Tunnel Mode)	128/64
Maximum Number of FortiTokens	5,000
High Availability Configurations	Active-Active, Active-Passive, Clustering

Product Comparison

Feature	FG-120G	FG-100F	FG-200E
GE RJ45 Ports	18	12	18
GE SFP Slots	8	4	8
10GE SFP+ Slots	4	0	2
Power Supply	Dual AC	Single AC	Dual AC
Hardware Acceleration	SP5	SP UNP6	SP6

Accessories

Category	Accessories
Included Accessories	- Power Cable
	- Mounting Bracket
	- Quick Installation Guide
Optional Accessories	- Rack Mount Kit: SP-RM-1000
	- SFP Transceivers: FG-TRAN-GC
	- Power Supply: FG-PSU-1000

Support & Warranty

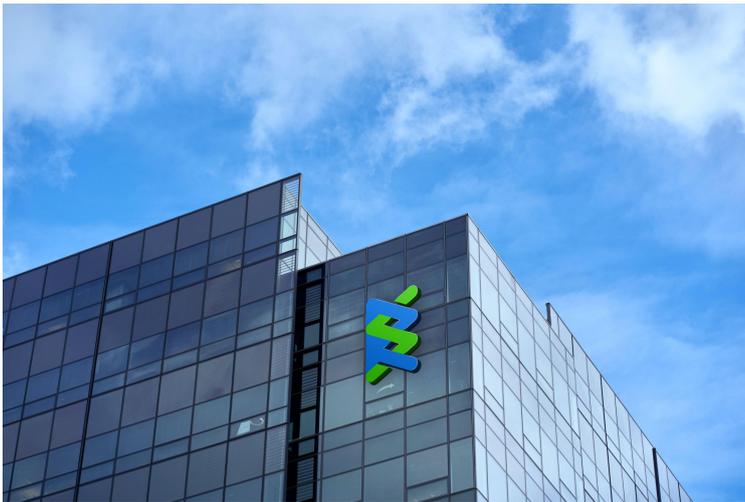|					
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[2] Router-switch.com. (n.d.). Overview of Fortinet FG-120G. Retrieved from https://www.router-switch.com/fg-120g.html