FÜRTINET

FortiGate®-5000 Series

10-Gigabit Ready FortiGate Consolidated Security Systems

Unmatched Performance, Scalability, and Security

FortiGate-5000 series chassis-based security systems offer unmatched performance, reliability, and scalability for your high-speed service provider, large enterprise or telecommunications carrier network. Native 10-GbE support and a highly-flexible AdvancedTCA™ (ATCA)-compliant architecture enable the FortiGate-5000 series to protect complex, multi-tenant cloud-based security-as-a-service and infrastructure-as-a-service environments. Purpose-built by Fortinet, the FortiGate-5000 series integrates modular carrier-class hardware components with advanced FortiASIC™ acceleration and consolidated security from the FortiOS™ operating system.

Carrier-Class High-Performance Hardware

By adding modular blades, a FortiGate-5000 series system can scale to deliver up to 560 Gbps of firewall throughput, the fastest throughput available, and up to 413 million concurrent sessions. Advanced networking blades such as the FortiSwitch-5003B and FortiSwitch-5203B distribute traffic to multiple FortiGate security blades, enabling wire-speed firewall performance at 10-Gigabit Ethernet (10-GbE), GbE, and 10/100 link speeds.

Modular Scalability

Since the FortiGate-5000 series hardware is composed of multiple security and networking blades, scalability for future growth comes standard. With three chassis models and an array of network and security options to choose from, FortiGate-5000 series systems scale easily with your business plans and security requirements into the future.

FortiOS™ 5.0 Software

FortiOS 5.0 is a purpose-built operating system that leverages the power of specialized FortiASIC hardware to offer increased levels of security and performance. Fortinet developed FortiOS 5.0 software solely for FortiGate consolidated security platforms. FortiOS software enables a comprehensive suite of security services – firewall, VPN, intrusion prevention, anti-malware, antispam, web filtering, application control, data loss prevention, vulnerability management, and endpoint network access control.

The FortiASIC™ Advantage

FortiASIC processors power FortiGate platforms. With exclusive hardware, the purpose built, high-performance network, security, and content processors use intelligent and proprietary digital engines to accelerate resource-intensive security services.

FortiGate-5020 System

FortiGate-5140B System   FortiGate-5060 System

| Features	Benefits
Hardware Accelerated Performance	FortiASIC processors provide assurance that the security device will not become a bottleneck in the network
Unified Security Architecture	FortiGate consolidated security provides better protection and lowered costs over multiple point security products
Centralized Management	FortiManager and FortiAnalyzer centralized management and reporting appliances simplify the deployment, monitoring, and maintenance of your security infrastructure

Secure large enterprise, service provider, and carrier networks.

Next-Generation Perimeter Security

Firewalls alone aren't enough to block today's blended threats. When single packets are examined by point products with no concern for multi-vector attacks, blended threats often pass undetected. Combining content inspection firewall technology with gateway antivirus and intrusion prevention allows packet flows to be tracked. Fortinet multi-layered security technologies examine entire packet flows, from content inspection through reassembly, stopping threats at the perimeter before corporate resources are compromised.
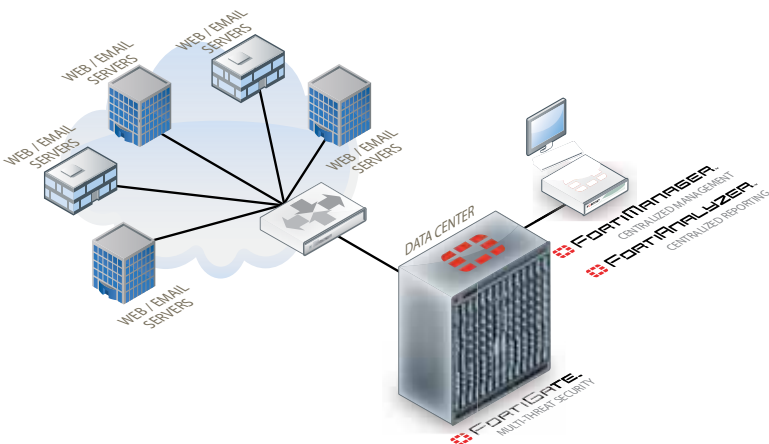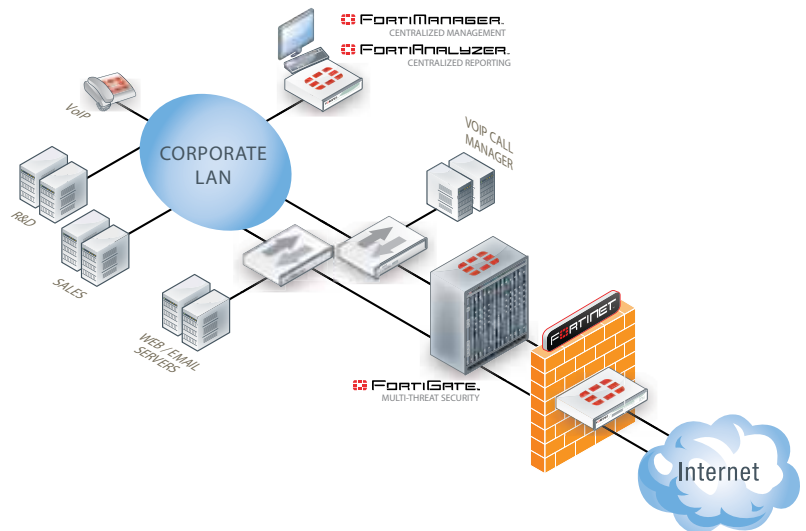
MSSP Core Security

The FortiGate-5000 Series delivers comprehensive security for Managed Security Service Providers (MSSPs). The full suite of ASIC-accelerated security modules allows for customizable features for specific customers, while virtualization features like Virtual Domains (VDOMs) provide up to 7,000 separate security domains. Finally, the full suite of Fortinet integrated management applications—including granular reporting features—offer unprecedented visibility into the security posture of customers while identifying their highest risks.

Secure Messaging

Email is an essential corporate communication tool. Malware has adapted to this trend and email is now a primary vector of transmission for malware threats. Instant messaging and other social media are also quickly becoming a primary propagation vector as adoption rates increase. As with any new technology, IM introduces security risks in the form of a new generation of malware that could potentially infect corporate resources. By combining Fortinet antispam technology, application control, antivirus scanning, and web filtering, customers can secure email and other messaging, preventing costly data breaches.
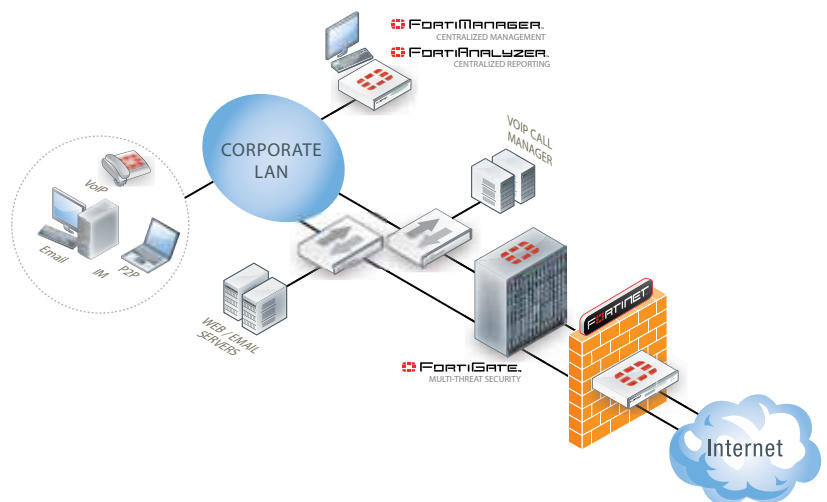
FortiGate-5000 Series Chassis

Highly-flexible ATCA-compliant architecture.

Technical Specifications	FortiGate-5020	FortiGate-5060	FortiGate-5140B
ATCA Chassis			
Available Slots	2	6	14
High Availability Backplane Fabric	Built-in	Built-in	Built-in
Shelf Manager (Default / Max)	-	1 / 2	1 / 2
Dual Switch Module Support	No	Yes	Yes
Dimensions			
Height x Width x Length	5.25 x 17 x 15.5 in (13.3 x 43.2 x 39.4 cm)	8.86 x 17.64 x 18.82 in (22 x 44.8 x 47.8 cm)	22.63 x 19 x 22.6 in (57.5 x 48.3 x 57.4 cm)
Weight	35.5 lb (16.1 Kg)	38 (17.3 Kg)	84 lb (38 Kg)
Environment			
Power Required	AC	DC/AC[1]	DC/AC[1]
Chassis Power Consumption (Avg)	-	350 W	530 W
Heat Dissipation	-	1194 BTU/h	1808 BTU/h
Operating Temperature	32 – 104 F (0 – 40 C)	41 – 104 F (5 – 40 C)	32 – 104 F (0 – 40 C)
Storage Temperature	-13 – 158 F (-35 – 70 C)	23 – 131 F (-5 – 55 C)	-13 – 158 F (-35 – 70 C)
Humidity	5 to 90% non-condensing	5 to 85% non-condensing	5 to 90% non-condensing
Compliance			
Certifications	FCC Part 15 Class A, C-Tick, VCCI, CE, BSMI, UL/cUL		

[1]Optional FortiGate-5053B Power Supply Shelf used to provide AC power to the FortiGate-5060 and FortiGate-5140B chassis.

FortiGate-5020 Security System

FortiGate-5060 Security System

FortiGate-5140B Security System

The FortiGate-5000 series of consolidated security systems also include

Multiple Deployment Modes (Transparent/Routing)
Backplane Switch Fabric
Advanced Layer-2/3 Routing Capabilities
High Availability (Active/Active, Active/Passive, Clustering)
Virtual Domains (VDOMs)
Data Center Traffic Optimization
Traffic Shaping and Prioritization
WAN Optimization
Multiple Device Authentication Options

Management Options

Local Web-Based Management Interface
Command Line Management Interface (CLI)
Local Event Logging (Memory / Disk if available)
Centralized Management (FortiManager Appliance Required)
Centralized Event Logging (FortiAnalyzer Appliance Required)

FortiGate-5000 Series Security Blades

Provide FortiOS consolidated security protections.

FortiGate-5001B Security Blade

FortiGate-5001C Security Blade

FortiSwitch-5203B Networking/Security Blade

FortiGate-5101C Security Blade

Technical Specifications Security Blades	FortiGate-5001B	FortiGate-5001C	FortiSwitch-5203B[2]	FortiGate-5101C
Interfaces and Storage				
10-GbE SFP+ Ports	8	2	10	4
10/100/1000 Base-T Ports	2	2	1	2
Transceivers Included	2x 10-GbE SFP+ SR	2x 10-GbE SFP+ SR	2x 10-GbE SFP+ SR	2x 10-GbE SFP+ SR
Local Storage	64 GB	128 GB	64 GB	64 GB
Performance				
Firewall Throughput (1518 byte UDP packets)	40 Gbps	40 Gbps	40 Gbps	40 Gbps
Firewall Throughput (512 byte UDP packets)	40 Gbps	40 Gbps	40 Gbps	40 Gbps
Firewall Throughput (64 byte UDP packets)	40 Gbps	40 Gbps	40 Gbps	10 Gbps
Firewall Latency (64 byte UDP packets)	4 µs	4 µs	4 µs	7 µs
Firewall Throughput (Packets Per Second)	60 Mpps	60 Mpps	60 Mpps	15 Mpps
Concurrent Sessions (TCP)	20 Million	29.5 Million	20 Million	10 Million
New Sessions/Sec (TCP)	170,000	210,000	170,000	235,000
Firewall Policies	100,000			
IPSec VPN Throughput (512 byte packets)	17 Gbps	17 Gbps	17 Gbps	22 Gbps
Gateway-to-Gateway IPSec VPN Tunnels	10,000			
Client-to-Gateway IPSec VPN Tunnels	64,000			
SSL-VPN Throughput	530 Mbps	850 Mbps	530 Mbps	970 Mbps
Concurrent SSL-VPN Users (Recommended Max)	20,000	30,000	20,000	25,000
IPS Throughput	7.8 Gbps	9.8 Gbps	7.8 Gbps	9.4 Gbps
Antivirus Throughput (Proxy Based / Flow Based)	2 / 2.5 Gbps	3 / 4 Gbps	2 / 2.5 Gbps	2 / 5 Gbps
Virtual Domains (Default / Max)	10 / 500	10 / 500	10 / 500	10 / 500
Max Number of FortiAPs (Total / Tunnel Mode)	4,096 / 1,024			
Max Number of FortiTokens	5,000			
Max Number of Registered FortiClients	8,000			
Unlimited User Licenses	Yes			
Environment				
Power Consumption (Avg/Max)	187 / 225 W	187 / 225 W	210 / 250 W	197 / 236 W
Heat Dissipation (Avg)	768 BTU/h	768 BTU/h	853 BTU/h	805 BTU/h
Operating Temperature	32 – 104 deg F (0 – 40 deg C)			
Storage Temperature	-31 – 158 deg F (-35 – 70 deg C)			
Humidity	20 to 90% non-condensing			
Compliance				
Certifications	ICSA Labs: Firewall, IPSec, IPS, Antivirus, SSL VPN			
Compliance	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB			

Note: All performance values are "up to" and vary depending on system configuration. Antivirus performance is measured using 44 Kbyte HTTP files. IPS performance is measured using 1 Mbyte HTTP files.

[1] Higher performance number combines performance provided by AMC modules.

[2] Operating in standalone mode.

FortiSwitch-5000 Series Networking Blades

Provide advanced switching and load-balancing services.

FortiSwitch-5003B Networking Blade

FortiSwitch-5203B Networking/Security Blade

Technical Specifications	FortiSwitch-5003B	FortiSwitch-5203B[3]
Interfaces		
Fabric Channel Interfaces	8x 10-GbE SFP+	8x 10-GbE SFP+
Base Channel Interfaces	2x 10-GbE SFP+	2x 10-GbE SFP+
Management Interfaces	1x 10/100/1000	1x 10/100/1000
Transceivers Included	2x 10-GbE SFP+ SR	2x 10-GbE SFP+ SR
Total Switching Throughput	225 Gbps	300 Gbps
10-GbE Backplane Fabric Support	Yes	Yes
GbE Backplane Fabric Support	Yes	Yes
Environment		
Power Consumption (Avg/Max)	150 / 180 W	210 / 250 W
Heat Dissipation	614 BTU/h	853 BTU/h
Operating Temperature	32 – 104 deg F (0 – 40 deg C)	
Storage Temperature	-13 – 158 deg F (-35 – 70 deg C)	
Humidity	20 to 90% non-condensing	
Compliance		
Certifications	ICSA Labs: Firewall, IPSec, IPS, Antivirus, SSL VPN	
Compliance	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB	

[3] Operating in distributed mode.

FortiController-5103B

Technical Specifications	FortiController-5103B
Interfaces	
Fabric Channel Interfaces	8x 10-GbE SFP+
Base Channel Interfaces	2x 10-GbE SFP+
Management Interfaces	1x 10/100/1000
Transceivers Included	2x 10-GbE SFP+ SR
Traffic Throughput	60 Gbps
Concurrent Sessions (TCP)	110 Million
New Sessions/Sec (TCP)	1.26 Million
10-GbE Backplane Fabric Support	Yes
GbE Backplane Fabric Support	Yes
Environment	
Power Consumption (Avg/Max)	213 / 255 W
Heat Dissipation	754 BTU/h
Operating Temperature	32 – 104 deg F (0 – 40 deg C)
Storage Temperature	-13 – 158 deg F (-35 – 70 deg C)
Humidity	20 to 90% non-condensing
Compliance	
Certifications	ICSA Labs: Firewall, IPSec, IPS, Antivirus, SSL VPN
Compliance	FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB

FortiOS Security Services

FIREWALL
ICSA Labs Certified (Corporate Firewall)
NAT, PAT, Transparent (Bridge)
Routing Mode (RIP, OSPF, BGP, Multicast)
Policy-Based NAT
Virtual Domains (NAT/Transparent mode)
VLAN Tagging (802.1Q)
Group-Based Authentication & Scheduling
SIP/H.323 /SCCP NAT Traversal
WINS Support
Explicit Proxy Support (Citrix/TS etc.)
VoIP Security (SIP Firewall/RTP Pinholing)
Granular Per-Policy Protection Profiles
Identity/Application-Based Policy
Vulnerability Management
IPv6 Support (NAT/Transparent mode)

VIRTUAL PRIVATE NETWORK (VPN)
ICSA Labs Certified (IPSec)
PPTP, IPSec, and SSL Dedicated Tunnels
SSL-VPN Concentrator (incl. iPhone client support)
DES, 3DES, and AES Encryption Support
SHA-1/MD5 Authentication
PPTP, L2TP, VPN Client Pass Through
Hub and Spoke VPN Support
IKE Certificate Authentication (v1 & v2)
IPSec NAT Traversal
Automatic IPSec Configuration
Dead Peer Detection
RSA SecurID Support
SSL Single Sign-On Bookmarks
SSL Two-Factor Authentication
LDAP Group Authentication (SSL)

NETWORKING/ROUTING
Multiple WAN Link Support
PPPoE Support
DHCP Client/Server
Policy-Based Routing
Dynamic Routing for IPv4 and IPv6 (RIP, OSPF, BGP, & Multi-cast for IPv4)
Multi-Zone Support
Route Between Zones
Route Between Virtual LANs (VDOMS)
Multi-Link Aggregation (802.3ad)
IPv6 Support (Firewall, DNS, Transparent Mode, SIP, Dynamic Routing, Admin Access, Management)
VRRP and Link Failure Control
sFlow Client

USER AUTHENTICATION OPTIONS
Local Database
Windows Active Directory (AD) Integration
External RADIUS/LDAP Integration
Xauth over RADIUS for IPSEC VPN
RSA SecurID Support
LDAP Group Support

DATA CENTER OPTIMIZATION
Web Server Caching
TCP Multiplexing
HTTPS Offloading
WCCP Support

ANTIVIRUS / ANTISPYWARE
Includes Antispyware and Worm Prevention:
HTTP/HTTPS   SMTP/SMTPS
POP3/POP3S   IMAP/IMAPS
FTP   IM Protocols
Flow-Based Antivirus Scanning Mode
Automatic "Push" Content Updates
File Quarantine Support
Databases: Standard, Extended, Extreme, Flow
IPv6 Support

WEB FILTERING
76 Unique Categories
FortiGuard Web Filtering Service Categorizes over 2 Billion Web pages
HTTP/HTTPS Filtering
Web Filtering Time-Based Quota
URL/Keyword/Phrase Block
URL Exempt List
Content Profiles
Blocks Java Applet, Cookies, Active X
MIME Content Header Filtering
IPv6 Support

HIGH AVAILABILITY (HA)
Active-Active, Active-Passive
Stateful Failover (FW and VPN)
Device Failure Detection and Notification
Link Status Monitor
Link failover
Server Load Balancing

WAN OPTIMIZATION
Bi-directional / Gateway to Client/Gateway
Integrated Caching and Protocol Optimization
Accelerates CIFS/FTP/MAPI/HTTP/HTTPS/Generic TCP

VIRTUAL DOMAINS (VDOMs)
Separate Firewall/Routing Domains
Separate Administrative Domains
Separate VLAN Interfaces
10 VDOM License Std. (more can be added)

TRAFFIC SHAPING
Policy-based Traffic Shaping
Application-based and Per-IP Traffic Shaping
Differentiated Services (DiffServ) Support
Guarantee/Max/Priority Bandwidth
Shaping via Accounting, Traffic Quotas

WIRELESS CONTROLLER
Unified WiFi and Access Point Management
Automatic Provisioning of APs
On-wire Detection and Blocking of Rogue APs
Virtual APs with Different SSIDs
Multiple Authentication Methods

INTRUSION PREVENTION SYSTEM (IPS)
ICSA Labs Certified (NIPS)
Protection From Over 3000 Threats
Protocol Anomaly Support
Custom Signature Support
Automatic Attack Database Update
IPv6 Support

APPLICATION CONTROL
Identify and Control Over 1,800 Applications
Control Popular Apps Regardless of Port/Protocol:
AOL-IM   Yahoo   MSN   KaZaa
ICQ   Gnutella   BitTorrent   MySpace
WinNY   Skype   eDonkey   Facebook

DATA LOSS PREVENTION (DLP)
Identification and Control Over Sensitive Data in Motion
Built-in Pattern Database
RegEx-based Matching Engine for Customized Patterns
Configurable Actions (block/log)
Supports IM, HTTP/HTTPS, and More
Many Popular File Types Supported
International Character Sets Supported

ANTISPAM
Support for SMTP/SMTPS, POP3/POP3S, IMAP/IMAPS
Real-Time Blacklist/Open Relay Database Server
MIME Header Check
Keyword/Phrase Filtering
IP Address Blacklist/Exempt List
Automatic Real-Time Updates From FortiGuard Network

ENDPOINT COMPLIANCE AND CONTROL
Monitor & Control Hosts Running FortiClient Endpoint Security

LOGGING/MONITORING/VULNERABILITY
Local Event Logging
Log to Remote Syslog/WELF Server
Graphical Real-Time and Historical Monitoring
SNMP Support
Email Notification of Viruses And Attacks
VPN Tunnel Monitor
Optional FortiAnalyzer Logging / Reporting
Optional FortiGuard Analysis and Management Service

MANAGEMENT/ADMINISTRATION
Console Interface (RS-232)
WebUI (HTTP/HTTPS)
Telnet / Secure Command Shell (SSH)
Command Line Interface
Role-Based Administration
Multi-language Support: English, Japanese, Korean, Spanish, Chinese (Simplified & Traditional), French
Multiple Administrators and User Levels
Upgrades and Changes via TFTP and WebUI
System Software Rollback
Configurable Password Policy
Optional FortiManager Central Management

Note: The list above is comprehensive and may contain FortiOS features which are not available on all FortiGate appliances.
Consult FortiGate system documentation to determine feature availability.

Ordering Info

Chassis	SKU	Description
FortiGate-5020 Chassis	FG-5020AC	2-slot chassis with fan and dual AC power supplies
FortiGate-5020/5050 Power Supply	FG-5020PS	FortiGate-5020/5050 power supply
FortiGate-5020 Fan Tray	FG-5020FA	Fan tray for FG-5020 chassis
FortiGate-5060 Chassis	FG-5060-DC	6-slot chassis with fan trays, power entry modules, shelf alarm panel and 1 shelf manager
FortiGate-5060 Fan Tray	FG-5060FA	Fan tray for FG-5060 chassis
FortiGate-5060 Shelf Manager	FG-5060SM	Shelf manager for FG-5060 chassis
FortiGate-5060 Shelf Alarm Panel	FG-5060SAP	Shelf alarm panel for FG-5060 chassis
FortiGate-5140B Chassis	FG-5140B-DC	14-slot chassis with fan, 1 shelf manager card, no AC power supply included (DC powered)
FortiGate 5053B Power Converter Tray	FG-5053B	AC power converter shelf for high capacity 5000 chassis, supports up to 4 PSU-5000B power supply units, unpopulated
FortiGate-5000 Series Power Supply Unit	PSU-5000B	Power Supply Unit for FG5000 series, AC power supply unit, 1,200 Watts max, requires FortiGate-5053B shelf
FortiGate-5140B Fan Tray	FG-5140B-FAN	FG-5140B Fan Unit
FortiGate-5140B Shelf Manager	FG-5140B-SM	FG-5140B Shelf Manager with Mezzanine Card
FortiGate-5140B Shelf Alarm Manager	FG-5140B-SAM	Shelf Alarm Manager for FG-5140B

Security Blades	SKU	Description
FortiGate-5001B	FG-5001B	Security blade with 8 x 10GE SFP+ slots, 2x GE RJ45 management port, 64GB SSD onboard storage
FortiGate-5001C	FG-5001C	Security blade with 2 10G SFP+, includes 2 SR SFP+ transceivers, onboard 128GB SSD
FortiGate-5101C	FG-5101C	FG-5101C blade with four 10-Gig SFP+, includes 2 SR SFP+ transceivers

Networking Blades	SKU	Description
FortiSwitch-5003B	FS-5003B	Networking blade for FortiGate-5000 series with 8 SFP+ fabric ports, 2 SFP+ base ports, 1 10/100/1000 management port, includes 2 SR SFP+ transceivers
FortiSwitch-5203B	FS-5203B	Networking blade for FortiGate-5000 series with 8 SFP+ Fabric ports, 2 SFP+ base ports, 1 10/100/1000 management port, includes 2 SR SFP+ transceivers
FortiController-5103B	FCTRL-5103B	FortiController-5103B blade with 8 SFP+ Fabric ports and 2 SFP+ Base ports, includes 2 SR SFP+

Other Accessories	SKU	Description
LX Transceiver Module	FG-TRAN-LX	Transceiver LX module for all FortiGate models with SFP interfaces
TX Transceiver Module	FG-TRAN-GC	Transceiver Base-T (Copper) module for all FortiGate models with SFP interfaces, supports 10/100/1000 operation
SX Transceiver Module	FG-TRAN-SX	Transceiver SX module for all FortiGate models with SFP interfaces
SFP+ Transceiver Module	FG-TRAN-SFP+SR	10-GbE transceiver, short range SFP+ module for all FortiGate models with SFP+ interfaces
XFP Transceiver Module	FG-TRAN-XFPSR	10-GbE transceiver, short range XFP module for all FortiGate models with XFP interfaces
SFP+ Long Range Transceiver Module	FG-TRAN-SFP+LR	10-GbE transceiver, SFP+, Long Range
XFP Long Range Transceiver Module	FG-TRAN-XFPLR	10-GbE transceiver, XFP, Long Range

NEBS
LEVEL 3
(UL)

FIPS VALIDATED 140-2

COMMON CRITERIA
EAL 4+ CERTIFIED

Advanced TCA

FortiGuard® Security Subscription Services deliver dynamic, automated updates for Fortinet products. The Fortinet Global Security Research Team creates these updates to ensure up-to-date protection against sophisticated threats. Subscriptions include antivirus, intrusion prevention, web filtering, antispam, vulnerability and compliance management, application control, and database security services.

FortiCare™ Support Services provide global support for all Fortinet products and services. FortiCare support enables your Fortinet products to perform optimally. Support plans start with 8x5 Enhanced Support with return and replace hardware support or 24x7 Comprehensive Support with advanced hardware replacement. Options include Premium Support, Premium RMA, and Professional Services. All hardware products include a 1-year limited hardware warranty and a 90-day limited software warranty.

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