

# 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 480 Gbps of firewall throughput, the fastest throughput available, and up to 132 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. In addition, select FortiGate security blades feature Advanced Mezzanine Card (AMC) expansion bays for additional hardware-accelerated network interfaces, local disk-based storage, and security processing offloading to specialized hardware. With four 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™ 4.0 Software Redefines Networks Security

FortiOS 4.0 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 4.0 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.

### Features

### Benefits

#### Hardware Accelerated Performance

FortiASIC processors provide assurance that the security device will not become a bottleneck in the network

#### Additional Capacity on Demand

Fortinet expansion slots provide greater flexibility by supporting additional hardware-accelerated ports and localized storage of event data

#### 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



FortiGate-5140/5140B System



FortiGate-5020 System



FortiGate-5050 System

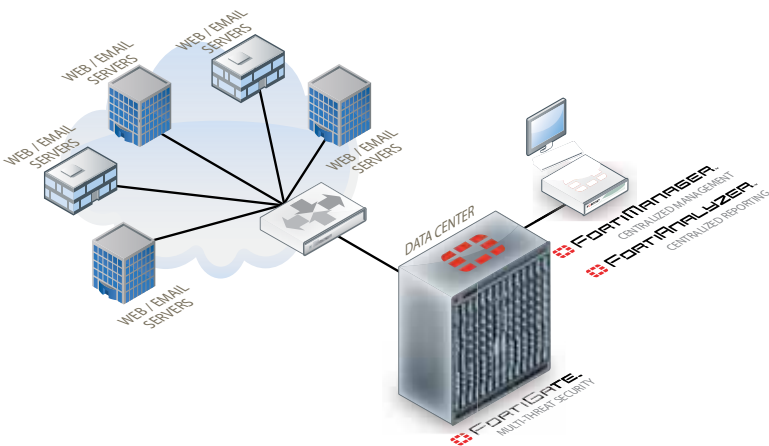
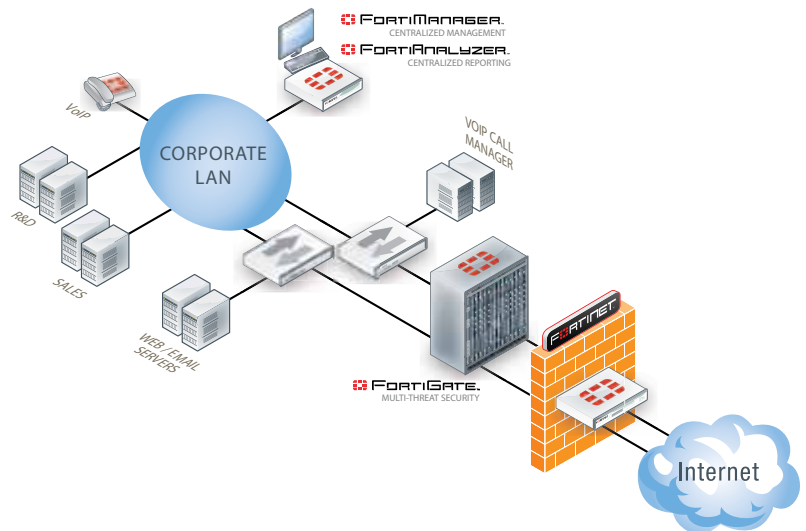


FortiGate-5060 System

# 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.

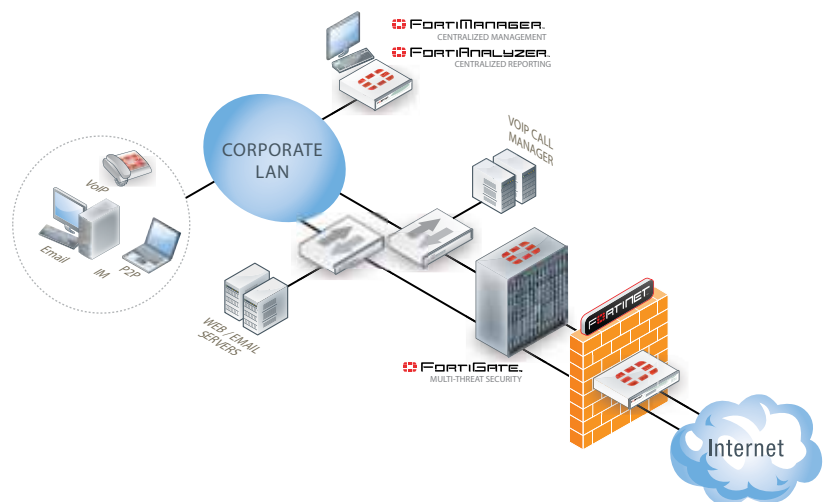


## MSSP Core Security

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 (VDMs) provide up to 6,000 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.



| Technical Specifications  | FortiGate-5020                            | FortiGate-5050           | FortiGate-5060          | FortiGate-5140           | FortiGate-5140B          |
|---|---|--------------------------|-------------------------|--------------------------|--------------------------|
| <b>ATCA Chassis</b>   |   |                          |                         |                          |                          |
| Available Slots   | 2   | 5                        | 6                       | 14                       | 14                       |
| High Availability Backplane Fabric  | Built-in                                  | Built-in                 | Built-in                | Built-in                 | Built-in                 |
| Dual Switch Module Support  | No  | Yes                      | Yes                     | Yes                      | Yes                      |
| Firewall Throughput (Max)   | Up to 44 Gbps                             | Up to 110 Gbps           | Up to 240 Gbps          | Up to 480 Gbps           | Up to 480 Gbps           |
| IPSec VPN Throughput (Max)  | Up to 17 Gbps                             | Up to 42.5 Gbps          | Up to 102 Gbps          | Up to 204 Gbps           | Up to 204 Gbps           |
| Concurrent Firewall Sessions (Max)  | Up to 4 Million                           | Up to 10 Million         | Up to 66 Million        | Up to 132 Million        | Up to 132 Million        |
| <b>Dimensions</b>   |   |                          |                         |                          |                          |
| Height  | 5.25 in (13.3 cm)                         | 8.75 in                  | 8.86 in (22 cm)         | 21 in (53.3 cm)          | 22.63 in (57.5 cm)       |
| Width   | 17 in (43.2 cm)                           | 17 in (43.2 cm)          | 17.64 in (44.8 cm)      | 19 in (48.3 cm)          | 19 in (48.3 cm)          |
| Length  | 15.5 in (39.4 cm)                         | 15.5 in (39.4 cm)        | 18.82 in (47.8 cm)      | 19 in (48.3 cm)          | 22.6 in (57.4 cm)        |
| Weight  | 35.5 lb (16.1 Kg)                         | 17.3 lb (7.85 Kg)        | 38 (17.3 Kg)            | 64.5 lb (29.3 Kg)        | 84 lb (38 Kg)            |
| <b>Environment</b>  |   |                          |                         |                          |                          |
| Power Required  | AC  | DC/AC <sup>1</sup>       | DC                      | DC/AC <sup>1</sup>       | DC/AC <sup>1</sup>       |
| Chassis Power Consumption (Avg)   | -   | -                        | 350 W                   | 510 W                    | 530 W                    |
| Heat Dissipation  | -   | -                        | 1194 BTU/h              | 1764 BTU/h               | 1808 BTU/h               |
| Operating Temperature   | 32 – 104 F (0 – 40 C)                     | 32 – 104 F (0 – 40 C)    | 41 – 104 F (5 – 40 C)   | 32 – 104 F (0 – 40 C)    | 32 – 104 F (0 – 40 C)    |
| Storage Temperature   | -13 – 158 F (-35 – 70 C)                  | -13 – 158 F (-35 – 70 C) | 23 – 131 F (-5 – 55 C)  | -13 – 158 F (-35 – 70 C) | -13 – 158 F (-35 – 70 C) |
| Humidity  | 5 to 90% non-condensing                   | 5 to 90% non-condensing  | 5 to 85% non-condensing | 5 to 90% non-condensing  | 5 to 90% non-condensing  |
| <b>Compliance</b>   |   |                          |                         |                          |                          |
| Certifications  | FCC Class A Part 15, UL/CUL, C Tick, VCCI |                          |                         |                          |                          |
| Note: All performance values are "up to" and vary depending on system configuration.  |   |                          |                         |                          |                          |
| <sup>1</sup> Optional FortiGate-5053 Power Supply Shelf used to provide AC power to the FortiGate-5050 and FortiGate-5140 chassis. Optional FortiGate-5053B Power Supply Shelf used to provide AC power to the FortiGate-5140B chassis. |   |                          |                         |                          |                          |



FortiGate-5020 Security System



FortiGate-5050 Security System



FortiGate-5060 Security System



FortiGate-5140/5140B Security System

### The FortiGate-5000 series of consolidated security systems also include

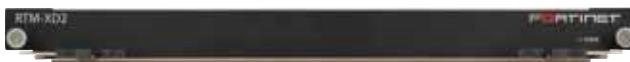
- Multiple Deployment Modes (Transparent/Routing)
- Backplane Switch Fabric
- Advanced Layer-2/3 Routing Capabilities
- High Availability (Active/Active, Active/Passive, Clustering)
- Virtual Domains (vDOMs)
- Data Center Traffic Optimization
- Traffic Shaping and Prioritization
- WAN Optimization
-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



RTM-XB2 Rear Transition Module



RTM-XD2 Rear Transition Module

### Rear Transition Modules

Provide enhanced 10-Gigabit Ethernet (10-GbE) backplane fabric connectivity to FortiGate systems. They include FortiASIC Network Processors for secure and low-latency communications.

| Technical Specifications   | RTM-XD2  | RTM-XB2  |
|--|--|--|
| <b>Rear Transition Modules</b>   |  |  |
| Application  | Wire-speed<br>10-GbE backplane fabric            | 10-GbE backplane fabric                          |
| FortiASIC Hardware Acceleration  | FortiASIC NP4                                    | FortiASIC NP2                                    |
| Compatible Chassis Models  | FortiGate-5140/5140B and FortiGate-5050          |  |
| Compatible Networking Blade  | FortiSwitch-5003A and FortiSwitch-5003B          |  |
| Compatible Security Blades   | FortiGate-5001A-SW and FortiGate-5001A-DW        |  |
| Configuration Notes  | 1 RTM-XD2 module per<br>FortiGate security blade | 1 RTM-XB2 module per<br>FortiGate security blade |
| <b>Performance</b>   |  |  |
| Firewall Performance<br>(64, 512, 1518 byte UDP packets)                             | 20 Gbps  | 11 Gbps  |
| IPSec VPN  | 8 Gbps   | 8 Gbps   |
| <b>Environment</b>   |  |  |
| Power Consumption (AVG)  | 148 W  |  |
| Operating Temperature  | 32 – 104 deg F (0 – 40 deg C)                    |  |
| Storage Temperature  | -13 – 158 deg F (-35 – 70 deg C)                 |  |
| Humidity   | 5 to 90% non-condensing                          |  |
| <b>Compliance</b>  |  |  |
| Certifications   | FCC Class A Part 15, UL/CUL, C Tick, VCCI        |  |
| Note: All performance values are "up to" and vary depending on system configuration. |  |  |

# FortiGate-5000 Series Security Blades

Provide FortiOS consolidated security protections.



FortiGate-5001B Security Blade



FortiSwitch-5203B Networking/Security Blade



FortiGate-5001FA2 Security Blade



FortiGate-5001A-SW/DW Security Blade



FortiGate-5005FA2 Security Blade



FortiGate-5001SX Security Blade

| Technical Specifications Security Blades   | FortiGate-5001SX                                  | FortiGate-5001FA2 | FortiGate-5005FA2 | FortiGate-5001A-SW / DW                | FortiGate-5001B | FortiSwitch-5203B <sup>2</sup> |
|--|---|-------------------|-------------------|--|-----------------|--------------------------------|
| <b>Interfaces and Storage</b>  |   |                   |                   |  |                 |                                |
| 10-GbE SFP+ Ports  | 0   | 0                 | 0                 | With AMC Module                        | 8               | 10                             |
| GbE SFP Ports  | 4   | 4                 | 8                 | With AMC Module                        | 0               | 0                              |
| 10/100/1000 Base-T Ports   | 4   | 4                 | 0                 | 2 / 2                                  | 2               | 1                              |
| Total Ports  | 8   | 8                 | 8                 | 6 / 10                                 | 10              | 11                             |
| FortiASIC Network Processor Accelerated Ports  | -   | 2                 | 2                 | With AMC Module                        | 8               | 8                              |
| Local Storage  | -   | -                 | -                 | With AMC Module                        | 64 GB SSD       | 64 GB SSD                      |
| AMC-Based Expansion Slot   | -   | -                 | -                 | 1 Single-Width / 1 Double-Width        | -               | -                              |
| <b>Performance</b>   |   |                   |                   |  |                 |                                |
| Firewall Throughput  | 4 Gbps  | 4 Gbps            | 5 Gbps            | 2 - 13 Gbps / 2 - 22 Gbps <sup>1</sup> | 40 Gbps         | 40 Gbps                        |
| IPSec VPN Throughput   | 600 Mbps  | 600 Mbps          | 800 Mbps          | 800 Mbps - 8.5 Gbps <sup>1</sup>       | 17 Gbps         | 17 Gbps                        |
| IPS Throughput   | 2 Gbps (UDP)                                      | 2 Gbps (UDP)      | 1.5 Gbps          | 3.5 Gbps                               | 5 Gbps          | 6 Gbps                         |
| Proxy-based Antivirus HTTP Throughput  | 250 Mbps  | 250 Mbps          | 300 Mbps          | 500 Mbps                               | 1.5 Gbps        | 2 Gbps                         |
| Flow-based Antivirus Throughput  | -   | -                 | -                 | 1.5 Gbps                               | 2.2 Gbps        | 2.5 Gbps                       |
| Gateway-to-Gateway IPSec VPN Tunnels (System / VDOM)   | 10,000 / 5,000                                    |                   |                   |  |                 |                                |
| Client-to-Gateway IPSec VPN Tunnels  | 10,000  | 10,000            | 64,000            | 64,000                                 | 64,000          | 64,000                         |
| Firewall Concurrent Sessions (Max)   | 1.2 M   | 1.2 M             | 1 M               | 2 M                                    | 11 M            | 10 M                           |
| Firewall New Sessions/sec (Max)  | 20,000  | 20,000            | 30,000            | 50,000                                 | 96,000          | 150,000                        |
| SSL-VPN Users (Max)  | 2,000   | 3,000             | 5,000             | 8,000                                  | 20,000          | 20,000                         |
| SSL-VPN Throughput   | 111 Mbps  | 120 Mbps          | 310 Mbps          | 480 Mbps                               | 530 Mbps        | 530 Mbps                       |
| Firewall Policies (Max)  | 100,000   |                   |                   |  |                 |                                |
| Virtual Domains (Standard/Optional)  | 10 / 250  | 10 / 250          | 10 / 250          | 10 / 250                               | 10 / 500        | 10 / 500                       |
| Unlimited User Licenses  | Yes   |                   |                   |  |                 |                                |
| <b>Environment</b>   |   |                   |                   |  |                 |                                |
| Power Consumption (Avg)  | 132 W   | 132 W             | 187 W             | 148 W                                  | 187 W           | 210 W                          |
| Heat Dissipation (Avg)   | 451 BTU/h   | 451 BTU/h         | 639 BTU/h         | 505 BTU/h                              | 639 BTU/h       | 718 BTU/h                      |
| Operating Temperature  | 32 – 104 deg F (0 – 40 deg C)                     |                   |                   |  |                 |                                |
| Storage Temperature  | -13 – 158 deg F (-35 – 70 deg C)                  |                   |                   |  |                 |                                |
| Humidity   | 5 to 90% non-condensing                           |                   |                   |  |                 |                                |
| <b>Compliance</b>  |   |                   |                   |  |                 |                                |
| Certifications   | FCC Class A Part 15, UL/CUL, C Tick, VCCI         |                   |                   |  |                 |                                |
| 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 benchmarked using traffic containing 32 Kbyte HTTP objects. IPS performance measured using 44 Kbyte HTTP files (similar to NSS Labs test methodology).<br><sup>1</sup> Higher performance number combines performance provided by AMC modules.<br><sup>2</sup> Operating in standalone mode. |   |                   |                   |  |                 |                                |

## FortiSwitch-5000 Series Networking Blades

Provide advanced switching and load-balancing services.



FortiSwitch-5203B Networking/Security Blade



FortiSwitch-5003B Networking Blade



FortiSwitch-5003A Networking Blade

| Technical Specifications Networking Blades  | FortiSwitch-5003A                                 | FortiSwitch-5003B                | FortiSwitch-5203B <sup>3</sup>   |
|---|---|----------------------------------|----------------------------------|
| <b>Interfaces</b>                           |   |                                  |                                  |
| Fabric Channel Interfaces                   | 8x 10-GbE SFP+                                    | 8x 10-GbE SFP+                   | 8x 10-GbE SFP+                   |
| Base Channel Interfaces                     | 1x 10-GbE SFP+<br>2x 10/100/1000                  | 2x 10-GbE SFP+<br>1x 10/100/1000 | 2x 10-GbE SFP+<br>1x 10/100/1000 |
| Transceivers Included                       | 2x 10-GbE SFP+ SR                                 | 2x 10-GbE SFP+ SR                | 2x 10-GbE SFP+ SR                |
| Total Switching Throughput                  | 225 Gbps  | 225 Gbps                         | 300 Gbps                         |
| 10-GbE Backplane Fabric Support             | Yes<br>(Requires RTM-XB2/RTM-XD2)                 | Yes                              | Yes                              |
| GbE Backplane Fabric Support                | Yes   | Yes                              | Yes                              |
| <b>Environment</b>                          |   |                                  |                                  |
| Power Consumption (AVG)                     | 148 W   | 150 W                            | 210 W                            |
| Operating Temperature                       | 32 – 104 deg F (0 – 40 deg C)                     |                                  |                                  |
| Storage Temperature                         | -13 – 158 deg F (-35 – 70 deg C)                  |                                  |                                  |
| Humidity                                    | 5 to 90% non-condensing                           |                                  |                                  |
| <b>Compliance</b>                           |   |                                  |                                  |
| Certifications                              | FCC Class A Part 15, UL/CUL, C Tick, VCCI         |                                  |                                  |
| Compliance                                  | FCC Part 15 Class A, C-Tick, VCCI, CE, UL/cUL, CB |                                  |                                  |
| <sup>3</sup> Operating in distributed mode. |   |                                  |                                  |

## Advanced Mezzanine Card (AMC) Modules

Provide flexibility and acceleration to FortiGate-5001A-SW/DW Security Blades.

### Security Processing Modules

Accelerate Intrusion Prevention and Multicast applications.



ADM-XE2 Module



ASM-CE4 Module

### Bypass Modules

Provide power-failure bypass operation to FortiGate system.



ASM-CX4 Module



ASM-FX2 Module

### Storage Modules

Enable FortiOS security and administration functions that require local storage.



ASM-S08 Module

### Accelerated Interface Modules

Accelerate Firewall and VPN applications.



ADM-XD4 Module



ADM-XB2 Module



ADM-FB8 Module



ASM-FB4 Module

Note: See the respective module datasheet for complete technical specifications for AMC Modules.

| Ordering Info                      |                |  |
|------------------------------------|----------------|--|
| Chassis                            | SKU            | Description  |
| FortiGate-5020 Chassis             | FG-5020AC      | 2-slot chassis with fan and dual AC power supplies   |
| FortiGate-5020 Fan Tray            | FG-5020FA      | Spare, Fan tray for FG-5020 chassis  |
| FortiGate-5020/5050 Power Supply   | FG-5020PS      | FortiGate-5020/5050 power supply   |
| FortiGate-5050 Chassis             | FG-5050-DC     | 5-slot chassis with fan, 1 shelf manager card, DC powered  |
| FortiGate-5050 Fan Tray            | FG-5050FA      | Fan tray for FG-5050 chassis   |
| FortiGate-5050 Shelf Manager       | FG-5050SM      | Shelf manager for FG-5050 chassis  |
| FortiGate-5050 Shelf Alarm Panel   | FG-5050SAP     | Shelf alarm panel for FG-5050 chassis  |
| FortiGate-5060 Chassis             | FG-5060-DC     | 6-slot chassis, 1 fan tray, 1 shelf manager, DC powered  |
| FortiGate-5140 Chassis             | FG-5140-DC     | 14-slot chassis with fan, 1 shelf manager card, no AC power supply included (DC powered)   |
| FortiGate-5140B Chassis            | FG-5140B-DC    | 14-slot chassis with fan, 1 shelf manager card, no AC power supply included (DC powered)   |
| Security Blades                    | SKU            | Description  |
| FortiGate-5001SX                   | FG-5001SX      | Security blade with 4 10/100/1000 ports and 4 SFP ports (4 SX-type transceivers included)  |
| FortiGate-5001FA2                  | FG-5001FA2     | Security blade with 4 10/100/1000 ports, 2 FortiASIC accelerated SFP ports (2 SX-type transceivers included), and 2 non-accelerated SFP ports          |
| FortiGate-5005FA2                  | FG-5005FA2     | Security blade with 2 FortiASIC-accelerated SFP ports (2 SX transceivers included) and 6 non-accelerated SFP ports                                     |
| FortiGate-5001A-DW                 | FG-5001A-DW    | Security blade with 2 10/100/1000 ports and 1 double-width AMC slot  |
| FortiGate-5001A-SW                 | FG-5001A-SW    | Security blade with 2 10/100/1000 ports and 1 single-width AMC slot  |
| FortiGate-5001B                    | FG-5001B       | Security blade with 8 FortiASIC-accelerated SFP+ ports (2 SR SFP+ transceivers included) and onboard 64GB SSD  |
| Networking Blades                  | SKU            | Description  |
| FortiSwitch-5003A Network Blade    | FS-5003A       | Networking blade for FortiGate-5000 series with 8 SFP+ fabric ports, 1 SFP+ and 2 10/100/1000 base ports   |
| FortiSwitch-5003B Network Blade    | 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 Network Blade    | 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 |
| Modules                            | SKU            | Description  |
| ASM-FB4 Module                     | ASM-FB4        | AMC Accelerated Interface Module, single-width, 4-port SFP, includes 4 SX SFP transceivers (Accelerated FW/VPN)  |
| ASM-S08 Module                     | ASM-S08        | AMC Storage Module, single-width, 80 GB hard disk drive (Local Disk-Based Storage)   |
| ASM-CX4 Module                     | ASM-CX4        | AMC Bypass Module, single-width, 4-port 10/100/1000 (Power Failure Bypass)   |
| ASM-FX2 Module                     | ASM-FX2        | AMC Bypass Module, single-width, 2-port fiber bypass module, LC-type Connectors (Power Failure Bypass)   |
| ASM-CE4 Module                     | ASM-CE4        | AMC Security Processing Module, single-width, 4-port 10/100/1000, (Accelerated IPS / Multicast)  |
| ADM-FB8 Module                     | ADM-FB8        | AMC Accelerated Interface Module, double-width, 8-port SFP, includes 4 SX SFP transceivers (Accelerated FW/VPN)  |
| ADM-XB2 Module                     | ADM-XB2        | AMC Accelerated Interface Module, double-width, 2-port 10-GbE XFP, includes 2 SR XFP transceivers (Accelerated FW/VPN)                                 |
| ADM-XD4 Module                     | ADM-XD4        | AMC Accelerated Interface Module, double-width, 4 port 10-GbE SFP+, includes 2 SR SFP+ transceivers (Accelerated FW/VPN)                               |
| ADM-XE2 Module                     | ADM-XE2        | AMC Security Processing Module, double-width, 2 port 10-GbE XFP, accelerated IPS, includes 2 SR XFP transceivers (Accelerated FW/VPN)                  |
| RTM-XB2 Module                     | RTM-XB2        | Rear Transition Module for FG-5000 series, 2 10-GbE internal ports for backplane fabric  |
| RTM-XD2 Module                     | RTM-XD2        | Rear transition module for FG-5000 series, 2 10-GbE internal ports for backplane fabric  |
| 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  |

## FortiOS Security Services

### FIREWALL

ICSA Labs Certified (Enterprise 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)

### ANTIVIRUS / ANTISPYWARE

ICSA Labs Certified (Gateway Antivirus)  
 Includes Antispyware and Worm Prevention:  
 HTTP/HTTPS SMTP/SMTSPS  
 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

### 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 1,600 Applications  
 Control Popular Apps Regardless of Port/Protocol:  
 AOL-IM Yahoo MSN KaZaa  
 ICQ Gnutella BitTorrent MySpace  
 WinNY Skype eDonkey Facebook

### 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, & Multicast for IPv4)  
 Multi-Zone Support  
 Route Between Zones  
 Route Between Virtual LANs (VDMs)  
 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

### 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 (VDMs)

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

### 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/SMTPTS, 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.



**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.

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