**FortiGate® Rugged Series**

While traditional security solutions are designed and intended for the world of offices and corporations, the FortiGate Rugged Series offers industrially-hardened, all-in-one security appliance that delivers specialized threat protection for securing critical industrial and control networks against malicious attacks.

### Ruggedized Design
Fanless and use of robust components ensure reliable operation in harsh industrial environments.

### Consolidated Security Architecture
FortiGate running FortiOS consolidated security offers better protection and lower cost of ownership than multiple point products. Coupled with FortiGuard Industrial Security Service, ensures that critical networks receive real-time protection.

### Ease of Management
Robust management systems that allow rapid provision and deployment, monitoring of device and threat status while providing actionable reports.

### Product Offerings

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FGR-30D</td>
<td>Ruggedized compact security appliance with DIN mounting kit</td>
</tr>
<tr>
<td>FGR-35D</td>
<td>Security appliance with IP67 rating for outdoor environment</td>
</tr>
<tr>
<td>FGR-60D</td>
<td>SPU SoC Powered, high performance security and VPN gateway</td>
</tr>
<tr>
<td>FGR-90D</td>
<td>Robust ruggedized security appliance with wide operating temperature</td>
</tr>
</tbody>
</table>

### Third-Party Certifications

[ICSAlabs logo]
HARDWARE

FortiGate Rugged Series

FortiGate Rugged 30D

Interfaces
1. 1x USB Port
2. 4x GE RJ45 Ports
3. 2x GE SFP Slots
4. 2x DB9 Serial Interface/Console

FortiGate Rugged 35D

Interfaces
1. 3x GE RJ45 Ports
2. 2x DB9 Serial Interface/Console
3. 2x GE SFP Slots
4. 3x GE RJ45 ports

FortiGate Rugged 60D

Interfaces
1. USB Management Port for FortiExplorer
2. Console Port (RJ45)
3. 4x GE RJ45 Ports

FortiGate Rugged 90D

Interfaces
1. 2x DB9 Serial Interface/Console
2. 2x GE SFP Slots
3. 1x GE RJ45 Bypass Pair
4. 2x USB interfaces

Wireless and 3G/4G WAN Extensions
The FortiGate supports external 3G/4G modems that allow additional or redundant WAN connectivity for maximum reliability. The FortiGate can also operate as a wireless access point controller to further extend wireless capabilities.

Compact, Ruggedized and Reliable Form Factor
Designed for confined spaces and harsh environments, the ruggedized FortiGate can be mounted within an enclosure, on a wall or on a DIN rail. It is small and lightweight yet highly reliable with superior Mean Time Between Failure (MTBF), minimizing the chance of a network disruption. The hardware components used meet high standards in both EMI and vibration tolerance with a wide thermal operating range supported.
FORTINET SECURITY FABRIC

Security Fabric
The Security Fabric allows security to dynamically expand and adapt as more and more workloads and data are added. Security seamlessly follows and protects data, users, and applications as they move between IoT, devices, and cloud environments throughout the network.

FortiGates are the foundation of Security Fabric, expanding security via visibility and control by tightly integrating with other Fortinet security products and Fabric-Ready Partner solutions.

FortiOS
Control all the security and networking capabilities across the entire FortiGate platform with one intuitive operating system. Reduce operating expenses and save time with a truly consolidated next-generation security platform.

- A truly consolidated platform with one OS for all security and networking services for all FortiGate platforms.
- Industry-leading protection: NSS Labs Recommended, VB100, AV Comparatives, and ICSA validated security and performance.
- Control thousands of applications, block the latest exploits, and filter web traffic based on millions of real-time URL ratings.
- Prevent, detect, and mitigate advanced attacks automatically in minutes with integrated advanced threat protection.
- Fulfill your networking needs with extensive routing, switching, and SD-WAN capabilities.
- Utilize SPU hardware acceleration to boost security capability performance.

SERVICES

FortiGuard™ Security Services
FortiGuard Labs offers real-time intelligence on the threat landscape, delivering comprehensive security updates across the full range of Fortinet’s solutions. Comprised of security threat researchers, engineers, and forensic specialists, the team collaborates with the world’s leading threat monitoring organizations and other network and security vendors, as well as law enforcement agencies.

FortiCare™ Support Services
Our FortiCare customer support team provides global technical support for all Fortinet products. With support staff in the Americas, Europe, Middle East, and Asia, FortiCare offers services to meet the needs of enterprises of all sizes.

For more information, please refer to the FortiOS data sheet available at www.fortinet.com

For more information, please refer to forti.net/fortiguard and forti.net/forticare
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Interfaces and Modules</th>
<th>FGR-30D</th>
<th>FGR-35D</th>
<th>FGR-60D</th>
<th>FGR-90D</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE RJ45 Interfaces</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>GE RJ45 Bypass Pair</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>GE SFP Slots</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Shared Media Pairs (GE RJ45 / GE SFP)</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>DB9 Serial Interface</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>USB (Client / Server)</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>RJ45 Console Port</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Included Transceivers</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

### System Performance and Capacity

<table>
<thead>
<tr>
<th>IPv4 Firewall Throughput (1518 UDP)</th>
<th>FGR-30D</th>
<th>FGR-35D</th>
<th>FGR-60D</th>
<th>FGR-90D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughput</td>
<td>900 Mbps</td>
<td>550 Mbps</td>
<td>1.5 Gbps</td>
<td>2 Gbps</td>
</tr>
</tbody>
</table>

### Dimensions and Power

| Height x Width x Length (inches) | 5.49 x 4.13 x 2.36 | 3.07 x 10.04 x 10.04 | 1.73 x 8.50 x 6.10 | 2.11 x 7.32 x 6.30 |
| Height x Width x Length (mm)     | 139.5 x 105 x 60   | 78 x 255.09 x 255.09 | 44 x 216 x 150    | 53.5 x 186 x 160   |
| Weight (lbs)                      | 1.46 lbs (0.668 kg) | 3.18 lbs (1.439 kg)  | 3.5 lbs (1.6 kg)  | 4.0 lbs (1.81 kg)  |
| Form Factor                       | Desktop            | Desktop              | Desktop           | Desktop            |
| Power Supply                      | Dual input, total 6 pin terminal block (12–48V DC) | Outdoor mountable, IPS 12–48V DC | 48V DC power supply and external 12V DC power adapter connection | Dual input, total 6 pin terminal block (12–48V DC) AC adapter included. |
| DC cables not included.           | 720,000            | 45,000               | 40,000            | 48,000             |
| Heat Dissipation                  | 54.29 BTU/h        | 35.61 BTU/h          | 40 BTU/h          | 167 BTU/h          |
| Operating Environment and Certifications | -40–158°F (-40–70°C) | -40–140°F (-40–60°C) | 3–140°F (-30–60°C) | -40–158°F (-40–70°C) |

### High Availability Configurations

Active-Active, Active-Passive, Clustering
Active-Active, Active-Passive, Clustering
Active-Active, Active-Passive, Clustering
Active-Active, Active-Passive, Clustering

### Power Consumption (Average / Maximum)

<table>
<thead>
<tr>
<th>Power Consumption</th>
<th>FGR-30D</th>
<th>FGR-35D</th>
<th>FGR-60D</th>
<th>FGR-90D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Consumption</td>
<td>15.55 W / 15.92W</td>
<td>10.2 W / 10.5 W</td>
<td>11.6 W / 14 W</td>
<td>40 W / 49 W</td>
</tr>
<tr>
<td>Maximum Current</td>
<td>1.19A 0.83A</td>
<td>0.83A -48V DC</td>
<td>0.5A 12–48V DC</td>
<td>4.08–1.02A</td>
</tr>
</tbody>
</table>

### Compliance

FCC Part 15 Class A, C-Tick, VCCI Class B, EAL 3, CE, UL/CSA, CB
FCC Part 15 Class A, C-Tick, VCCI Class B, EAL 3, CE, UL/CSA, CB
FCC Part 15 Class A, C-Tick, VCCI Class B, EAL 3, CE, UL/CSA, CB
FCC Part 15 Class A, C-Tick, VCCI Class B, EAL 3, CE, UL/CSA, CB
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product</th>
<th>SKU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FortiGate Rugged 30D</strong></td>
<td>FGR-30D</td>
<td>Ruggedized, 4x GE RJ45 ports, 2x GE SFP slots, 2x DB9 Serial. Maximum managed FortiAPs (Total / Tunnel) 2 / 2.</td>
</tr>
<tr>
<td><strong>FortiGate Rugged 50D</strong></td>
<td>FGR-50D</td>
<td>Ruggedized, 4x GE RJ45 ports, 2x GE SFP slots, 2x DB9 Serial. Maximum managed FortiAPs (Total / Tunnel) 10 / 5.</td>
</tr>
<tr>
<td><strong>FortiGate Rugged 90D</strong></td>
<td>FGR-90D</td>
<td>Ruggedized, 3x GE RJ45 ports, 1x GE RJ45 bypass pair, 2x SFP slots, 2x DB9 Serial/console. Dual power input. Maximum managed FortiAPs (Total / Tunnel) 32 / 16.</td>
</tr>
</tbody>
</table>

**Optional Accessories**

1 GE SFP LX transceivers, SMF, -40–85°C operation

FR-TRAN-LX

1 GE SFP LX transceiver module, -40–85°C over SMF, for all systems with SFP and SFP/SFP+ slots.

FR-TRAN-SX

1 GE SFP transceivers, SMF, -40–85°C operation

FR-TRAN-2X

**FortiGuard Bundles**

- FortiCASB SaaS-only Service *  
- FortiGuard Industrial Service  
- FortiGuard Security Rating Service *  
- FortiGuard Antispam  
- FortiGuard Web Filtering  
- FortiGuard Advanced Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR*, Virus Outbreak Protection* and FortiSandbox Cloud Service*  
- FortiGuard IPS Service  
- FortiCare + FortiGuard App Control Service

**Order Information**

**Product**

- FortiGate Rugged 30D
- FortiGate Rugged 50D
- FortiGate Rugged 90D

**SKU**

- FGR-30D
- FGR-50D
- FGR-90D

**Description**

- Ruggedized, 4x GE RJ45 ports, 2x GE SFP slots, 2x DB9 Serial. Maximum managed FortiAPs (Total / Tunnel) 2 / 2.
- Ruggedized, 4x GE RJ45 ports, 2x GE SFP ports, 2x DB9 Serial. Maximum managed FortiAPs (Total / Tunnel) 10 / 5.
- Ruggedized, 3x GE RJ45 ports, 1x GE RJ45 bypass pair, 2x SFP slots, 2x DB9 Serial/console. Dual power input. Maximum managed FortiAPs (Total / Tunnel) 32 / 16.

**Certifications**

- IEEE 1613 and IEC 61850-3
- Certified ICSA Labs: Firewall, PS, Antivirus, SSL-VPN

**Note:** All performance values are “up to” and vary depending on system configuration.

1. IPS/VPN performance test uses AES256-SHA256.
2. IPS, Application Control, NGFW and Threat Protection are measured with Logging enabled.
3. SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.
4. NGFW performance is measured with Firewall, IPS, and Application Control enabled.
5. Threat Protection performance is measured with Firewall, IPS, Application Control, and Malware Protection enabled.
6. AC adapter not supported.
7. AC adapter not supported. Requires fabricated DC cables (refer to QuickStart Guide).
8. Requires third-party AC adapter or DC cables. If wide temperature range is not required, SP-FG600C-PDC (5–40°C) may be acquired separately.
9. Additional space required for dual redundant input is currently not available for order.
10. Excludes supplied power adapter which operates at smaller temperature range.

**Available when running FortiOS 6.0.1 and above**

*With new Q3-2018 SKUs*

**Copyright** © 2018 Fortinet, Inc. All rights reserved. FortiGate®, FortiGateR, FortiCare, and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., in the U.S. and other jurisdictions, and other Fortinet names herein may also be registered and/or common-law trademarks of Fortinet. All other products or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variable, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet’s General Counsel, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet’s internal lab tests. In no event does Fortinet make any commitment related to future deliverables, features or development, and circumstances may change such that any forward-looking statements herein are not accurate. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, translate, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.