DATA SHEET

FortiGate/FortiWiFi® 50E Series

FortiGate 50E, FortiWiFi 50E/-2R, FortiGate/FortiWiFi 51E and FortiGate 52E

Secure SD-WAN
Unified Threat Management

The FortiGate 50E series offers an excellent Security and SD-WAN solution in a compact fanless desktop form factor for enterprise branch offices and mid-sized businesses. Protect against cyber threats with industry-leading secure SD-WAN in a simple, affordable, and easy to deploy solution.

Security
- Identifies thousands of applications inside network traffic for deep inspection and granular policy enforcement
- Protects against malware, exploits, and malicious websites in both encrypted and non-encrypted traffic
- Prevents and detects against known and unknown attacks using continuous threat intelligence from AI-powered FortiGuard Labs security services

Performance
- Delivers industry's best threat protection performance and ultra-low latency using purpose-built security processor (SPU) technology
- Provides industry-leading performance and protection for SSL encrypted traffic

Certification
- Independently tested and validated best security effectiveness and performance
- Received unparalleled third-party certifications from NSS Labs, ICSA, Virus Bulletin, and AV Comparatives

Networking
- Best of Breed SD-WAN capabilities to enable application steering using WAN path control for high quality of experience
- Delivers advanced networking capabilities, high-performance, and scalable IPsec VPN capabilities

Management
- Includes Management Console that's effective, simple to use, and provides comprehensive network automation & visibility.
- Provides Zero Touch Integration with Security Fabric's Single Pane of Glass Management
- Predefined compliance checklist analyzes the deployment and highlights the best practices to improve overall security posture

Security Fabric
- Enables Fortinet and Fabric-ready partners' products to provide broader visibility, integrated end-to-end detection, threat intelligence sharing, and automated remediation
- Automatically builds Network Topology visualizations which discover IoT devices and provide complete visibility into Fortinet and Fabric-ready partner products

Firewall	IPS	NGFW	Threat Protection	Interfaces
2.5 Gbps	350 Mbps	220 Mbps	160 Mbps	Multiple GE RJ45 | WiFi variants | Variants with dual radios | Variants with internal storage

Refer to specification table for details

Deployment

Unified Threat Management (UTM)

- Integrated wired and wireless networking to simplify IT
- Purpose-built hardware for industry best performance with easy administration through cloud management
- Provides consolidated security and networking for small businesses and consistently provides top-rated threat protection
- Proactively blocks newly discovered sophisticated attacks in real-time with advanced threat protection
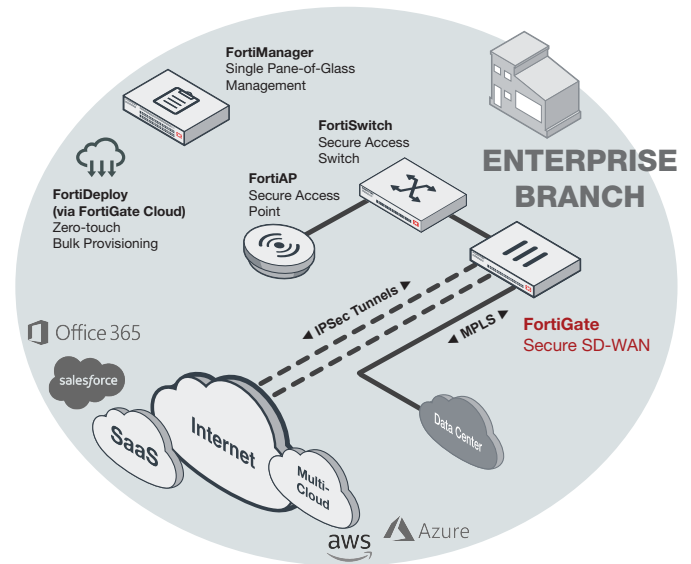
Secure SD-WAN

- Secure direct Internet access for Cloud Applications for improved latency and reduce WAN cost spending
- High-performance and cost-effective threat protection capabilities
- WAN Path Controller and Link Health Monitoring for better application performance and quality of experience
- Security Processer powered industry's best IPsec VPN and SSL Inspection performance
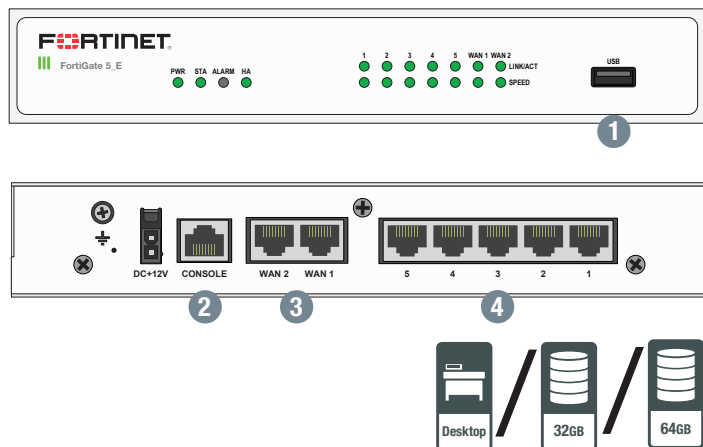- Simplified Management and Zero Touch deployment
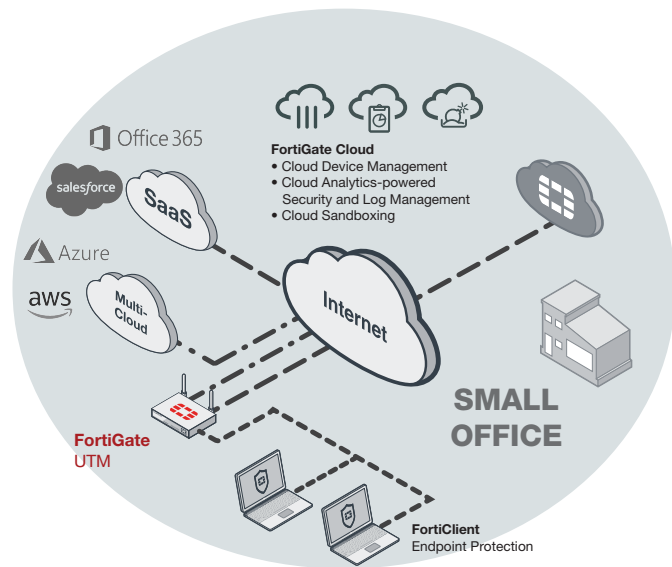
FortiWiFi 50E deployment in Small Office
(UTM)

FortiGate 50E deployment in Enterprise Branch
(Secure SD-WAN)

Hardware

FortiGate 50/51/52E

FortiWiFi 50E/-2R and 51E

Interfaces

1. USB Port
2. Console RJ45
3. 2x GE RJ45 WAN Ports
4. 5x GE RJ45 Switch Ports

Interfaces

1. USB Port
2. Console RJ45
3. 2x GE RJ45 WAN Ports
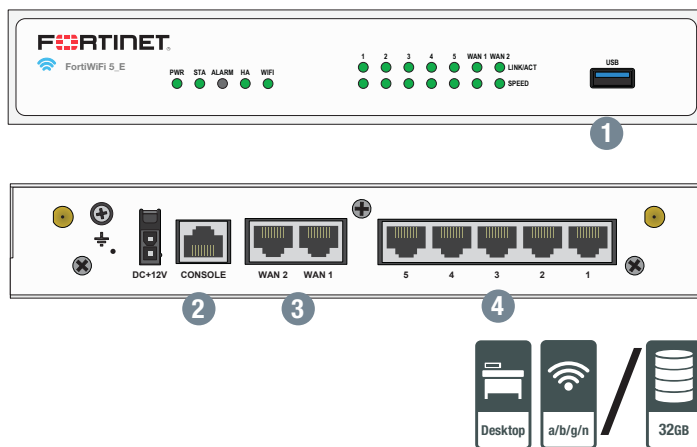4. 5x GE RJ45 Switch Ports

Install in Minutes with FortiExplorer

The FortiExplorer wizard enables easy setup and configuration coupled with easy-to-follow instructions. FortiExplorer runs on popular iOS devices. Using FortiExplorer is as simple as starting the application and connecting to the appropriate USB port on the FortiGate. By using FortiExplorer, you can be up and running and protected in minutes.

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 and Reliable Form Factor

Designed for small environments, you can simply place the FortiGate/FortiWiFi 50E series on a desktop. It is small, lightweight yet highly reliable with superior MTBF (Mean Time Between Failure), minimizing the chance of a network disruption.

Superior Wireless Coverage

A built-in dual-band, dual-stream access point on the FortiWiFi 50E-2R provides speedy 802.11ac coverage on 2.4 GHz or 5 GHz bands. The dual-band chipset addresses the PCI-DSS compliance requirement for rogue AP wireless scanning.

Fortinet Security Fabric

Security Fabric

The Security Fabric delivers broad visibility, integrated AI-driven breach prevention, and automated operations, orchestration, and response across all Fortinet and its ecosystem deployments. It 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. All this is tied together under a single pane of glass management to deliver leading security capabilities across your entire environment while also significantly reducing complexity.

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 security and networking capabilities across the entire FortiGate platform with one intuitive operating system. Reduce complexity, costs, and response time with a truly consolidated next-generation security platform.
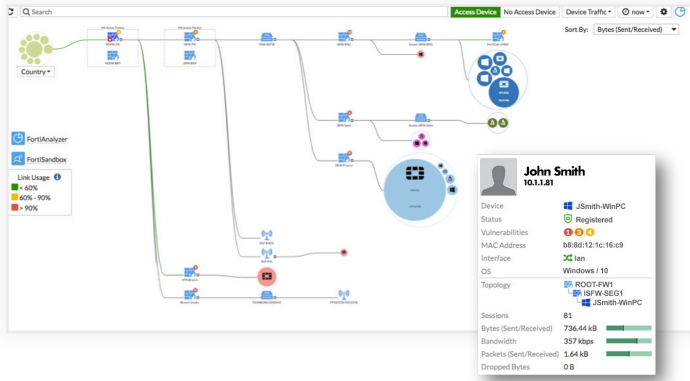
- A truly consolidated platform with a single OS and pane-of-glass for all security and networking services across all FortiGate platforms.
- Industry-leading protection: NSS Labs Recommended, VB100, AV Comparatives, and ICSA validated security and performance. Ability to leverage latest technologies such as deception-based security.
- Control thousands of applications, block the latest exploits, and filter web traffic based on millions of real-time URL ratings in addition to true TLS 1.3 support.
- Prevent, detect, and mitigate advanced attacks automatically in minutes with integrated AI-driven breach prevention and advanced threat protection.
- Improved user experience with innovative SD-WAN capabilities and ability to detect, contain and isolate threats with Intent-based Segmentation.
- 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 forti.net/fortiguard and forti.net/forticare

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Specifications

	FG-50E	FWF-50E	FWF-50E-2R	FG-51E	FWF-51E	FG-52E
Hardware Specifications						
GE RJ45 Switch Ports			5			
GE RJ45 WAN Ports			2			
USB Ports			1			
Console (RJ45)			1			
Wireless Interface	—	802.11 a/b/g/n	dual radio, 802.11a/b/g/n/ac	—	802.11 a/b/g/n	—
Internal Storage	—	—	—	1x 32 GB SSD	1x 32 GB SSD	2x 32 GB SSD
System Performance — Enterprise Traffic Mix						
IPS Throughput [2]			350 Mbps			
NGFW Throughput [2, 4]			220 Mbps			
Threat Protection Throughput [2, 5]			160 Mbps			
System Performance						
Firewall Throughput			2.5 Gbps			
Firewall Latency (64 byte UDP packets)			180 μs			
Firewall Throughput (Packets Per Second)			375 Kpps			
Concurrent Sessions (TCP)			1.8 Million			
New Sessions/Second (TCP)			21,000			
Firewall Policies			5,000			
IPsec VPN Throughput (512 byte) [1]			90 Mbps			
Gateway-to-Gateway IPsec VPN Tunnels			200			
Client-to-Gateway IPsec VPN Tunnels			250			
SSL-VPN Throughput			100 Mbps			
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)			200			
SSL Inspection Throughput (IPS, avg. HTTPS) [3]			150 Mbps			
SSL Inspection CPS (IPS, avg. HTTPS) [3]			140			
SSL Inspection Concurrent Session (IPS, avg. HTTPS) [3]			75,000			
Application Control Throughput (HTTP 64K) [2]			450 Mbps			
CAPWAP Throughput (HTTP 64K)			1.2 Gbps			
Virtual Domains (Default / Maximum)			5 / 5			
Maximum Number of FortiSwitches Supported			8			
Maximum Number of FortiAPs (Total / Tunnel Mode)			10 / 5			
Maximum Number of FortiTokens			500			
Maximum Number of Registered FortiClients			200			
High Availability Configurations			Active/Active, Active/Passive, Clustering			
Dimensions						
Height x Width x Length (inches)			1.44 x 8.52 x 5.5			
Height x Width x Length (mm)			36.5 x 216 x 140			
Weight	2.015 lbs (0.914 kg)	2.041 lbs (0.926 kg)	2.38 lbs (1.08 kg)	2.04 lbs (0.925 kg)	2.04 lbs (0.925 kg)	2.04 lbs (0.925 kg)
Form Factor			Desktop			

Note: All performance values are "up to" and vary depending on system configuration.
1. IPsec VPN performance test uses AES256-SHA256.
2. IPS (Enterprise Mix), 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.

Specifications

	FG-50E	FWF-50E	FWF-50E-2R	FG-51E	FWF-51E	FG-52E
Operating Environment and Certifications						
Power Required	INPUT: 12VDC (powered by External DC Power Adapter, 100–240V AC, 50–60 Hz)					
Maximum Current	100 V / 0.6 A, 240 V / 0.4 A					110 V / 0.32 A, 220 V / 0.57 A
Power Consumption (Average / Maximum)	15 / 18 W	18 / 22 W	22.1 / 26.5 W	16 / 20 W	19 / 23 W	22.5 / 27 W
Heat Dissipation	62 BTU/h	75 BTU/h	90 BTU/h	67 BTU/h	79 BTU/h	92 BTU/h
Operating Temperature	32–104°F (0–40°C)					
Storage Temperature	-31–158°F (-35–70°C)					
Humidity	10–90% non-condensing					
Noise Level	Fanless 0 dBA					
Operating Altitude	Up to 7,400 ft (2,250 m)					
Regulatory Compliance	FCC Part 15 Class B, C-Tick, VCCI, CE, UL/cUL, CB					
Certifications	ICSA Labs: Firewall, IPsec, IPS, Antivirus, SSL-VPN					

Order Information

Product	SKU	Description
FortiGate 50E	FG-50E	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), maximum managed FortiAPs (Total / Tunnel) 10 / 5.
FortiWiFi 50E	FWF-50E	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), Wireless (802.11a/b/g/n), maximum managed FortiAPs (Total / Tunnel) 10 / 5.
FortiWiFi 50E-2R	FWF-50E-2R	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), dual radio wireless (802.11a/b/g/n/ac), maximum managed FortiAPs (Total / Tunnel) 10 / 5.
FortiGate 51E	FG-51E	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), 32 GB SSD onboard storage, maximum managed FortiAPs (Total / Tunnel) 10 / 5.
FortiWiFi 51E	FWF-51E	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), Wireless (802.11a/b/g/n), 32 GB SSD onboard storage, maximum managed FortiAPs (Total / Tunnel) 10 / 5.
FortiGate 52E	FG-52E	7x GE RJ45 ports (including 2x WAN ports, 5x Switch ports), 2x 32 GB SSD onboard storage, maximum managed FortiAPs (Total / Tunnel) 10 / 5.
Optional Accessory		
Rack Mount Tray	SP-RACKTRAY-01	Rack mount tray for FG-30D, FG-40C, FG-50/51E, FG-60C, FG-60D/-POE, FG-70D, FG-80D, FG-90D/-POE, FAD-100E, FRC-100D, FWB-100D, FML-60D, FVE-100E.

Bundles

FortiGuard Bundle

FortiGuard Labs delivers a number of security intelligence services to augment the FortiGate firewall platform. You can easily optimize the protection capabilities of your FortiGate with one of these FortiGuard Bundles.

Bundles	360 Protection	Enterprise Protection	UTM	Threat Protection
FortiCare	ASE [1]	24x7	24x7	24x7
FortiGuard App Control Service	•	•	•	•
FortiGuard IPS Service	•	•	•	•
FortiGuard Advanced Malware Protection (AMP) — Antivirus, Mobile Malware, Botnet, CDR, Virus Outbreak Protection and FortiSandbox Cloud Service	•	•	•	•
FortiGuard Web Filtering Service	•	•	•	
FortiGuard Antispam Service	•	•		
FortiGuard Security Rating Service	•	•		
FortiGuard Industrial Service	•	•		
FortiCASB SaaS-only Service	•	•		
FortiConverter Service	•			
SD-WAN Cloud Assisted Monitoring [2]	•			
SD-WAN Overlay Controller VPN Service [2]	•			
FortiAnalyzer Cloud [2]	•			
FortiManager Cloud [2]	•			

1. 24x7 plus Advanced Services Ticket Handling   2. Available when running FortiOS 6.2

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