

FortiGate/FortiWiFi® 50E Series

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

Enterprise Branch Secure SD-WAN Unified Threat Management



The FortiGate 50E series offers an excellent network security 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

- Protects against known exploits, malware and malicious websites using continuous threat intelligence provided by FortiGuard Labs security services
- Detects unknown attacks using dynamic analysis and provides automated mitigation to stop targeted attacks

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

- Delivers an extensive routing, switching, wireless controller and high performance IPsec VPN capabilities to consolidate networking and security functionality
- Enables flexible deployment such as UTM and Secure SD-WAN

Management

- Single Pane of Glass with Network Operations Center (NOC) view provides 360° visibility to identify issues quickly and intuitively
- Predefined compliance checklist analyzes the deployment and highlights best practices to improve overall security posture

Security Fabric

 Enables Fortinet and Fabric-ready partners' products to collaboratively integrate and provide end-to-end security across the entire attack surface



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

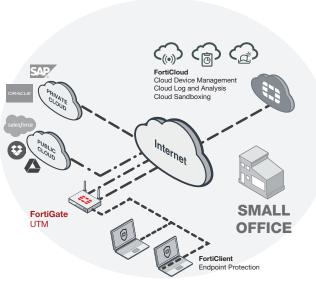


Unified Threat Management (UTM)

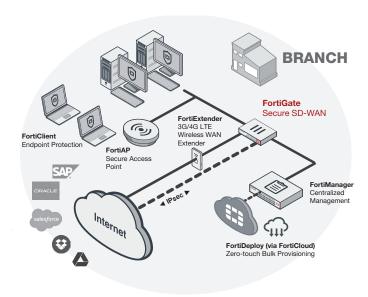
- Consolidated security and networking for small businesses
- Consistently top-rated protection to stop threats
- Integrated wired and wireless networking to simplify IT
- Purpose-built hardware for industry best performance
- Cloud management for easy administration



- Secure direct internet access for Cloud Applications for improved latency and reduce WAN cost spending
- Effective, cost-efficient and high performance threat prevention capabilities
- WAN Path Controller and Link Health Monitoring for better application performance
- Security Processor powered industry's best IPsec VPN and SSL Inspection performance
- Centralized Management and Zero Touch deployment



FortiWiFi 50E deployment in small office (UTM)



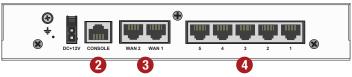
FortiGate 50E deployment in branch office (Secure SD-WAN)

2 www.fortinet.com

HARDWARE

FortiGate 50/51/52E

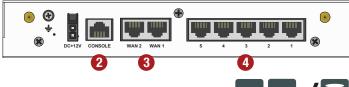






FortiWiFi 50E/-2R and 51E







Interfaces

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

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Install in Minutes with FortiExplorer

The FortiExplorer wizard enables easy setup and configuration coupled with easy-to-follow instructions. FortiExplorer runs on popular mobile devices like Android and iOS. 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 both 2.4 GHz and 5 GHz bands. The dual-band chipset addresses the PCI-DSS compliance requirement for rogue AP wireless scanning.

SPECIFICATIONS

CE RJ46 Switch Ports		FG-50E	FWF-50E	FWF-50E-2R	FG-51E	FWF-51E	FG-52E	
CE PLAS PAYER 1900	Hardware Specifications							
Main	GE RJ45 Switch Ports			5				
Conside (PUAS) S0211 oblight S0211	GE RJ45 WAN Ports							
Minerial Storage	USB Ports	1						
Marianal Storage	Console (RJ45)	1						
Priewail Throughput	Wireless Interface	_	802.11 a/b/g/n		_	802.11 a/b/g/n	_	
Firewall Throughput	Internal Storage	_	_	_	32 GB	32 GB	2x 32 GB	
Firewall Throughput (Packets Per Second)	System Performance							
Firewall Throughput (Packets Per Second) 3,75 Kgps	Firewall Throughput			2.5 Gb	ps			
Concurrent Sessions (TCP)	Firewall Latency (64 byte UDP packets)			180 բ	IS			
New Sessions/Second (TCP)	Firewall Throughput (Packets Per Second)			375 Kp	ps			
Pise VPN Throughput (512 byte)	Concurrent Sessions (TCP)			1.8 Mill	ion			
Pase VPN Throughput (512 byte)	New Sessions/Second (TCP)			21,00	0			
Client-to-Gateway Proce VPN Tunnels 250 25	Firewall Policies	5,000						
Signature Sign	IPsec VPN Throughput (512 byte) 1			90 Mb	ps			
SSL VPN Throughput	Gateway-to-Gateway IPsec VPN Tunnels	200						
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode) 80 SSL Inspection Throughput (IPTF) 64K)? 185 Mtpps Application Control Throughput (IHTP 64K)? 450 Mtpps CAPWAP Throughput (1444 byte, UDP) 1.9 Gtpps Virtual Domains (Default / Maximum) 5 / 5 Maximum Number of Switches Supported 8 Maximum Number of FortiAPs (Total / Tunnel Mode) 100/5 Maximum Number of Registered FortiClients 200 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mtps System Performance — Enterprise Traffic Mix 220 Mtps IPS Throughput 2.4 220 Mtps NGFW Throughput 2.5 160 Mtps Dimensions 1.44 x 8.52 x 5. Height x Width x Length (inches) 1.44 x 8.52 x 5. Height x Width x Length (inches) 2.04 lbs <	Client-to-Gateway IPsec VPN Tunnels			250				
SSL Inspection Throughput (PS, HTTP) 3	SSL-VPN Throughput	100 Mbps						
Application Control Throughput (HTP 64K) 2 450 Mbps CAPWAP Throughput (1444 byte, UDP) 1.9 Gbps Virtual Domains (Default / Maximum) 5 / 5 Maximum Number of Switches Supported 8 Maximum Number of FortiAPs (Total / Tunnel Mode) 10 / 5 Maximum Number of FortiAPs (Total / Tunnel Mode) 100 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Passive, Clustering System Performance—Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance—Enterprise Traffic Mix IPS Throughput 2 350 Mbps NGFW Throughput 2 350 Mbps NGFW Throughput 2 360 Mbps Threat Protection Throughput 2 3 350 Mbps NGFW Throughput 2 3 360 Mbps Threat Protection Throughput 2 3 360 Mbps 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 bs 2,041 bs 2,381 bs 2,04 lbs 2,04 lbs 2,04 lbs 2,04 bs (0,925 kg)	Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)			80				
CAPWAP Throughput (1444 byte, UDP)	SSL Inspection Throughput (IPS, HTTP) ³							
Virtual Domains (Default / Maximum) 5 / 5 Maximum Number of Switches Supported 8 Maximum Number of FortiAPs (Total / Tunnel Mode) 10 / 5 Maximum Number of FortiTokens 100 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance — Enterprise Traffic Mix IPS Throughput 2 - NGFW Throughput 2 - State Protection Throughpu	Application Control Throughput (HTTP 64K) ²			450 Mt	ops			
Maximum Number of Switches Supported 8 Maximum Number of FortiAPs (Total / Tunnel Mode) 10 / 5 Maximum Number of FortiTokens 100 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance — Enterprise Traffic Mix IPS Throughput 2.4 350 Mbps NGFW Throughput 2.4 220 Mbps Threat Protection Throughput 2.5 160 Mbps Dimensions 1.44 x 8.52 x 5.5 Height x Width x Length (inches) 1.44 x 8.52 x 5.5 Height x Width x Length (inches) 2.04 lbs 2.05 kg) (0.925	CAPWAP Throughput (1444 byte, UDP)							
Maximum Number of FortiAPs (Total / Tunnel Mode) 10 / 5 Maximum Number of FortiTokens 100 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance — Enterprise Traffic Mix IPS Throughput 2 * 350 Mbps NGFW Throughput 2 * 220 Mbps Threat Protection Throughput 2 * 160 Mbps Dimensions 1.44 x 8.52 x 5.5 Height x Width x Length (inches) 1.44 x 8.52 x 5.5 Height x Width x Length (imm) 36.5 x 216 x 140 Weight 2.015 lbs 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs (0,914 kg) (0,926 kg) (1.08 kg) (0,925 kg) (0,925 kg) (0,925 kg)	Virtual Domains (Default / Maximum)			5/5)			
Maximum Number of FortiTokens 100 Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance — Enterprise Traffic Mix IPS Throughput 2 350 Mbps NGFW Throughput 2.4 220 Mbps Threat Protection Throughput 2.5 160 Mbps Dimensions 1.44 x 8.52 x 5.5 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 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs Weight 2.015 lbs 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs	Maximum Number of Switches Supported			8				
Maximum Number of Registered FortiClients 200 High Availability Configurations Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix IPS Throughput 2 800 Mbps System Performance — Enterprise Traffic Mix IPS Throughput 2 350 Mbps NGFW Throughput 2.4 220 Mbps Threat Protection Throughput 2.5 160 Mbps 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 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs Weight (0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	Maximum Number of FortiAPs (Total / Tunnel Mode)			10 / 9	5			
Active/Active, Active/Passive, Clustering System Performance — Optimal Traffic Mix PS Throughput 2	Maximum Number of FortiTokens	100						
PS Throughput 2 800 Mbps	Maximum Number of Registered FortiClients	200						
PS Throughput 2 800 Mbps	High Availability Configurations	Active/Active, Active/Passive, Clustering						
System Performance — Enterprise Traffic Mix	System Performance — Optimal Traffic Mix							
PS Throughput 2	IPS Throughput ²			800 Mi	ops			
A20 Mbps Threat Protection Throughput 2-5 160 Mbps 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 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs (0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	System Performance — Enterprise Traffic Mix							
Threat Protection Throughput 2.5 160 Mbps		350 Mbps						
Dimensions	NGFW Throughput ^{2,4}	220 Mbps						
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 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs (0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	Threat Protection Throughput ^{2,5}	160 Mbps						
Height x Width x Length (mm) 36.5 x 216 x 140 Weight 2.015 lbs 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs (0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	Dimensions							
Weight 2.015 lbs 2.041 lbs 2.38 lbs 2.04 lbs 2.04 lbs 2.04 lbs (0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	Height x Width x Length (inches)	1.44 x 8.52 x 5.5						
(0.914 kg) (0.926 kg) (1.08 kg) (0.925 kg) (0.925 kg) (0.925 kg)	Height x Width x Length (mm)	36.5 x 216 x 140						
Form Factor Desktop	Weight							
	Form Factor			Deskto	<i>-</i>			

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 test uses TLS v1.2 with AES128-SHA256.

- NGFW performance is measured with Firewall, IPS and Application Control enabled.
 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	100-240V AC, 60-50 Hz (External DC Power Adapter)					
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 O 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.



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	Threat Protection	UTM	Enterprise Protection
FortiSandbox Cloud (plus FortiGuard CDR* and VOP* service)			•
FortiGuard Antispam		•	•
FortiGuard Web Filtering		•	•
FortiGuard Antivirus + Botnet + Mobile AV Service	•	•	•
FortiGuard IPS Service	•	•	•
FortiCare + FortiGuard App Control Service	•	•	•

* Available when running FortiOS 6.0 and above



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