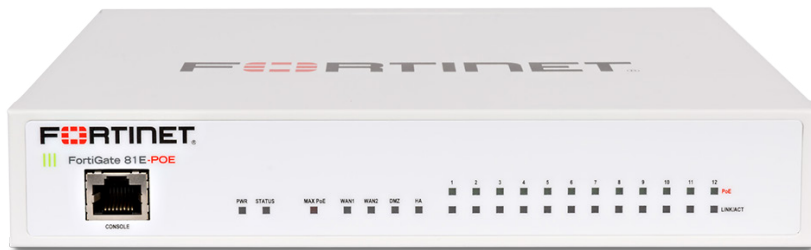# FortiGate® 80E Series

FG-80E-POE and FG-81E-POE

**Secure SD-WAN
Next Generation Firewall**

The FortiGate 80E series provides an application-centric, scalable and secure SD-WAN solution in a compact fanless desktop form factor for enterprise branch offices and mid-sized businesses. Protects against cyber threats with system-on-a-chip acceleration and industry-leading secure SD-WAN in a simple, affordable, and easy to deploy solution. Fortinet's Security-Driven Networking approach provides tight integration of the network to the new generation of security.

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
- Prevent and detect 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 for best-in-class security effectiveness and performance
- Received unparalleled third-party certifications from NSS Labs

Networking
- Delivers advanced networking capabilities that seamlessly integrate with advanced layer 7 security and virtual domains (VDOMs) to offer extensive deployment flexibility, multi-tenancy and effective utilization of resources
- Delivers high-density, flexible combination of various high-speed interfaces to enable best TCO for customers for data center and WAN deployments

Management
- Includes a management console that is effective, simple to use, and provides comprehensive network automation and visibility
- Provides Zero Touch Integration with Fortinet's Security Fabric's Single Pane of Glass Management
- 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 provide broader visibility, integrated end-to-end detection, threat intelligence sharing, and automated remediation

| Firewall	IPS	NGFW	Threat Protection	Interfaces
4 Gbps	450 Mbps	360 Mbps	250 Mbps	Multiple GE RJ45 │ Variants with internal storage │ Variants with PoE/+ interfaces

DEPLOYMENT

Next Generation Firewall (NGFW)

- Reduce the complexity and maximize your ROI by integrating threat protection security capabilities into a single high-performance network security appliance, powered by Fortinet's Security Processing Unit (SPU)

- Full visibility into users, devices, applications across the entire attack surface and consistent security policy enforcement irrespective of asset location

- Protect against network exploitable vulnerabilities with industry-validated IPS that offers low latency and optimized network performance

- Automatically block threats on decrypted traffic using the Industry's highest SSL inspection performance, including the latest TLS 1.3 standard with mandated ciphers

- Proactively block newly discovered sophisticated attacks in real-time with AI-powered FortiGuard Labs and advanced threat protection services included in the Fortinet Security Fabric
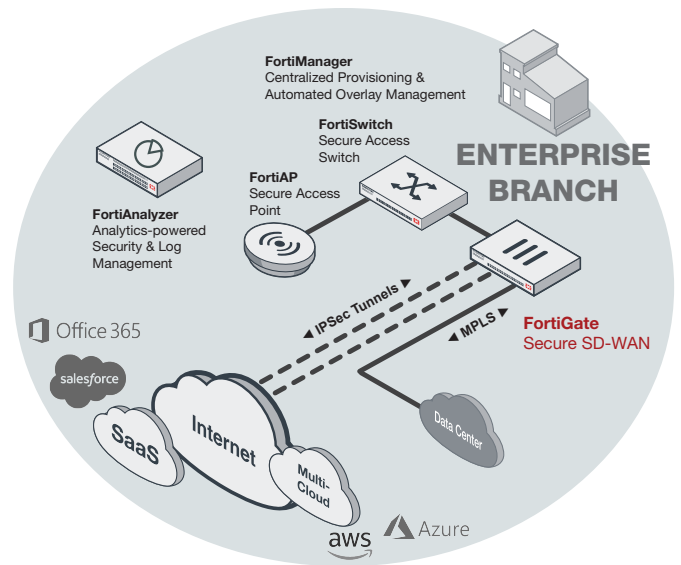
Secure SD-WAN

- Consistent business application performance with accurate detection, dynamic WAN path steering on any best-performing WAN transport

- Accelerated Multi-cloud access for faster SaaS adoption with cloud-on-ramp

- Self-healing networks with WAN edge high availability, sub-second traffic switchover-based and real-time bandwidth compute-based traffic steering

- Automated Overlay tunnels provides encryption and abstracts physical hybrid WAN making it simple to manage.

- Simplified and intuitive workflow with FortiManger for management and zero touch deployment

- Enhanced analytics both real-time and historical provides visibility into network performance and identify anomalies.

- Strong security posture with next generation firewall and real- time threat protection
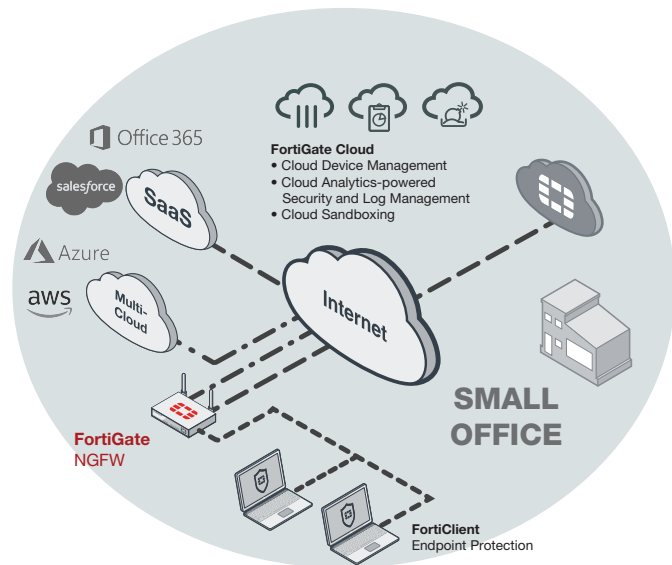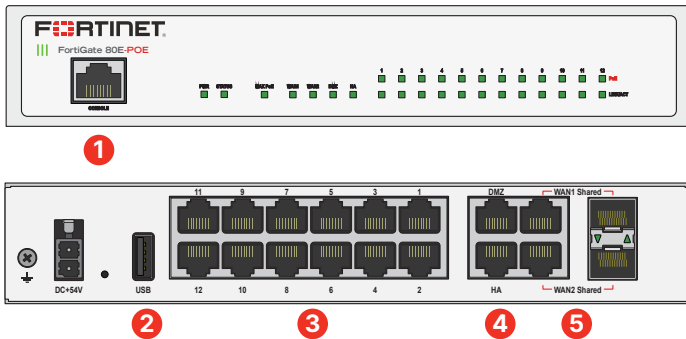
**Small Office Deployment
(NGFW)**

**Enterprise Branch Deployment
(Secure SD-WAN)**

HARDWARE

FortiGate 80E-POE and 81E-POE

Hardware Features

SOC3   Desktop   POE/+   /   128GB

Interfaces

1.	Console Port
2.	USB Port
3.	12x GE RJ45 POE/+ Ports
4.	2x GE RJ45 DMZ/HA Ports
5.	2x GE RJ45/SFP Shared Media Pairs

Powered by SPU SoC3

SPU

- Combines a RISC-based CPU with Fortinet's proprietary SPU content and network processors for unmatched performance

- Simplifies appliance design and enables breakthrough performance for smaller networks

- Supports firewall acceleration across all packet sizes for maximum throughput

- Delivers accelerated UTM content processing for superior performance and protection

- Accelerates VPN performance for high speed and secure remote access

3G/4G WAN Connectivity

The FortiGate 80E Series includes a USB port that allows you to plug in a compatible third-party 3G/4G USB modem, providing additional WAN connectivity or a redundant link for maximum reliability.

Compact and Reliable Form Factor

Fortinet's ninth generation custom SPU CP9 content processor works outside of the direct flow of traffic and accelerates the inspection.

FORTINET SECURITY FABRIC

Security Fabric

The industry's highest-performing cybersecurity platform, powered by FortiOS, with a rich ecosystem designed to span the extended digital attack surface, delivering fully automated, self-healing network security.

- **Broad**: Coordinated detection and enforcement across the entire digital attack surface and lifecycle with converged networking and security across edges, clouds, endpoints and users

- **Integrated**: Integrated and unified security, operation, and performance across different technologies, location, deployment options, and the richest Ecosystem

- **Automated**: Context aware, self-healing network & security posture leveraging cloud-scale and advanced AI to automatically deliver near-real-time, user-to-application coordinated protection across the Fabric

The Fabric empowers organizations of any size to secure and simplify their hybrid infrastructure on the journey to digital innovation.

FortiOS™ Operating System

FortiOS, Fortinet's leading operating system enable the convergence of high performing networking and security across the Fortinet Security Fabric delivering consistent and context-aware security posture across network endpoint, and clouds. The organically built best of breed capabilities and unified approach allows organizations to run their businesses without compromising performance or protection, supports seamless scalability, and simplifies innovation consumption.

The release of FortiOS 7 dramatically expands the Fortinet Security Fabric's ability to deliver consistent security across hybrid deployment models consisting on appliances, software and As-a-Service with SASE, ZTNA and other emerging cybersecurity solutions.

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™ Services

Fortinet is dedicated to helping our customers succeed, and every year FortiCare services help thousands of organizations get the most from their Fortinet Security Fabric solution. We have more than 1000 experts to help accelerate technology implementation, provide reliable assistance through advanced support, and offer proactive care to maximize security and performance of Fortinet deployments.

SPECIFICATIONS

	FORTIGATE 80E-POE	FORTIGATE 81E-POE
Hardware Specifications		
GE RJ45/SFP Shared Media Pairs	2	2
GE RJ45 Ports	—	—
GE RJ45 PoE/+ Ports	12	12
GE RJ45 DMZ/HA Ports	2	2
USB Ports	1	1
Console (RJ45)	1	1
Internal Storage	—	1× 128 GB SSD
System Performance — Enterprise Traffic Mix		
IPS Throughput 2	450 Mbps	
NGFW Throughput 2, 4	360 Mbps	
Threat Protection Throughput 2, 5	250 Mbps	
System Performance		
Firewall Throughput (1518 / 512 / 64 byte UDP packets)	4 / 4 / 4 Gbps	
Firewall Latency (64 byte UDP packets)	3 µs	
Firewall Throughput (Packets Per Second)	6 Mpps	
Concurrent Sessions (TCP)	1.3 Million	
New Sessions/Second (TCP)	30 000	
Firewall Policies	5000	
IPsec VPN Throughput (512 byte) 1	2.5 Gbps	
Gateway-to-Gateway IPsec VPN Tunnels	200	
Client-to-Gateway IPsec VPN Tunnels	2500	
SSL-VPN Throughput	200 Mbps	
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)	200	
SSL Inspection Throughput (IPS, avg. HTTPS) 3	135 Mbps	
SSL Inspection CPS (IPS, avg. HTTPS) 3	135	
SSL Inspection Concurrent Session (IPS, avg. HTTPS) 3	95 000	
Application Control Throughput (HTTP 64K) 2	900 Mbps	
CAPWAP Throughput (HTTP 64K)	920 Mbps	
Virtual Domains (Default / Maximum)	10 / 10	
Maximum Number of FortiSwitches Supported	16	
Maximum Number of FortiAPs (Total / Tunnel Mode)	32 / 16	
Maximum Number of FortiTokens	500	
High Availability Configurations	Active-Active, Active-Passive, Clustering	
Dimensions and Por		
Height x Width x Length (inches)	1.65 × 8.5 × 7	
Height x Width x Length (mm)	42 × 216 × 178	
Weight	2.65 lbs (1.2 kg)	
Form Factor	Desktop	
Input Rating	54Vdc, 2.78A	54Vdc, 2.78A
Power Required	Powered by External DC Power Adapter, 100-240V AC, 50/60 Hz	
Maximum Current	115V AC / 1.2A, 230V AC / 0.6A	115V AC / 1.2A, 230V AC / 0.6A
Total Available PoE Power Budget*	110 W	110 W
Power Consumption (Average/Maximum)	20 W / 137 W	20 W / 137 W
Heat Dissipation	467.5 BTU/h	467.5 BTU/h

* Maximum loading on each PoE/+ port is 30 W (802.3at).

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

	FORTIGATE 80E-POE	FORTIGATE 81E-POE
Operating Environment and Certifications		
Operating Temperature	32–104°F (0–40°C)	
Storage Temperature	-31–158°F (-35–70°C)	
Humidity	10–90% non-condensing	
Noise Level	35 dBA	35 dBA
Operating Altitude	Up to 16 404 ft (5000 m)	
Compliance	FCC, ICES, CE, RCM, VCCI, BSMI, UL/cUL, CB	
Certifications	ICSA Labs Firewall, IPsec, IPS, Antivirus, SSL-VPN	

ORDERING INFORMATION

Product	SKU	Description
FortiGate 80E-PoE	FG-80E-POE	16x GE RJ45 ports (including 2x WAN ports, 1x DMZ port, 1x HA port, 12x PoE ports)
FortiGate 81E-PoE	FG-81E-POE	16x GE RJ45 ports (including 2x WAN ports, 1x DMZ port, 1x HA port, 12x PoE ports). 128 GB onboard storage
Optional Accessories		
1 GE SFP RJ45 Transceiver Module	FN-TRAN-GC	1 GE SFP RJ45 transceiver module for all systems with SFP and SFP/SFP+slots.
1 GE SFP SX Transceiver Module	FN-TRAN-SX	1 GE SFP SX transceiver module for all systems with SFP and SFP/SFP+ slots.
1 GE SFP LX Transceiver Module	FN-TRAN-LX	1 GE SFP LX transceiver module for all systems with SFP and SFP/SFP+ slots.

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	Enterprise Protection	SMB Protection	Unified Threat Protection	Advanced Threat Protection
FortiCare	24×7	24×7	24×7	24×7
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 and Video[1] Filtering Service	•	•	•	
FortiGuard Antispam Service	•	•	•	
FortiGuard Security Rating Service	•			
FortiGuard IoT Detection Service	•			
FortiGuard Industrial Service	•			
FortiConverter Service	•			
FortiGate Cloud Subscription		•		

1. Available when running FortiOS 7.0

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