

# FortiGate FortiWiFi 80F Series

**Data Sheet**



## Highlights

**Gartner® Magic Quadrant™ Leaders** for both Network Firewalls and SD-WAN

**Unparalleled performance** enabled by Fortinet's patented ASIC and the FortiOS operating system

**Enterprise-grade protection** with FortiGuard AI-Powered Security Services

**Simplified operations** with centralized management for networking and security, automated workflows, deep analytics, and self-healing

**Inclusive SD-WAN** and wireless controller in every FortiGate appliance at no extra cost

**Rich portfolio** for any business budget and need

## Converged Next-Generation Firewall and SD-WAN

The FortiGate and FortiWiFi 80F series integrate firewalling, SD-WAN, and security in one appliance, making them perfect for building secure networks at distributed enterprise sites and transforming WAN architecture at any scale.

The 80F series runs on FortiOS, the industry's first converged networking and security operating system. This single OS approach enables businesses to gain benefits of operational efficiency and unified protection from the seamless integration of Fortinet Solutions within a Hybrid Mesh Firewall architecture.

As a cornerstone of the Fortinet Security Fabric platform, the FortiGate NGFW works seamlessly with FortiGuard AI-Powered Security Services to deliver coordinated, automated, end-to-end threat protection in real time.

The 80F family is built on the patented SD-WAN-based ASIC, which delivers unmatched performance over traditional CPUs with lower cost and reduced power consumption. This application-specific design and embedded multi-core processor further accelerate the convergence of networking and security functions in the 80F family to optimize secure connections and deliver a robust user experience at branch locations.

IPS	NGFW	Threat Protection	Interfaces
1.4 Gbps	1 Gbps	900 Mbps	Multiple GE RJ45   Variants with PoE, DSL, 3G4G, WiFi and/or storage

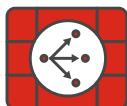
## Use Cases

### Perimeter Protection



- Protect networks from malicious traffic, guard against file-based threats, block web-based attacks, and secure applications and data with natively integrated FortiGuard AI-Powered Security Services
- Inspect and control incoming and outgoing traffic based on defined security policies
- Perform real-time SSL inspection (including TLS 1.3) with full visibility into users, devices, and applications across the attack surface
- Accelerate performance, protection, and energy efficiency with Fortinet's patented SPU with converged security and networking technologies

### Secure SD-WAN



- FortiGate enables best-of-breed WAN edge with integrated SD-WAN, WAN optimization, security, and unified management from a single FortiOS operating system
- FortiGate, built on a patented SD-WAN-based ASIC, delivers faster application identification to avoid delays in accessing applications and accelerates overlay performance regardless of location
- Enhances hybrid working with a comprehensive SASE solution by integrating cloud-delivered SD-WAN with security service edge (SSE)
- Achieves operational efficiencies at any scale through automation, deep analytics, and self-healing

### Secure Branch



- The Fortinet Security Fabric platform enables FortiGate NGFWs to automatically discover and secure IoT devices for faster branch onboarding
- Fully integrated with FortiSwitch secure Ethernet switches and FortiAP access points, FortiGate easily extends security to WAN, LAN, and WLAN at branch offices for unified protection and reliable connectivity
- FortiGate and Fortinet products work seamlessly with FortiManager to centralize visibility and simplify management across locations for IT teams
- FortiGate HA support ensures continuous network protection and minimizes downtime in the event of hardware failures or network disruptions

### Universal ZTNA



Control access to applications no matter where the user is and no matter where the application is hosted for universal application of access policies.

- Provide extensive authentications, checks, and enforce policy prior to granting application access every time
- Agent-based access with FortiClient or agentless access via proxy portal for guest or BYOD



## FortiGuard AI-Powered Security Services

FortiGuard AI-Powered Security Services is part of Fortinet's layered defense and tightly integrated into our FortiGate NGFWs and other products. Infused with the latest threat intelligence from FortiGuard Labs, these services protect organizations against modern attack vectors and threats, including zero-day and sophisticated AI-powered attacks.

### Network and file security

Network and file security services protect against network and file-based threats. With over 18,000 signatures, our industry-leading intrusion prevention system (IPS) uses AI/ML models for deep packet/SSL inspection, detecting and blocking malicious content, and applying virtual patches for newly discovered vulnerabilities. Anti-malware protection defends against both known and unknown file-based threats, combining antivirus and sandboxing for multi-layered security. Application control improves security compliance and provides real-time visibility into applications and usage.

### Web/DNS security

Web/DNS security services protect against DNS-based attacks, malicious URLs (including those in emails), and botnet communications. DNS filtering blocks the full spectrum of DNS-based attacks while URL filtering uses a database of over 300 million URLs to identify and block malicious links. Meanwhile, IP reputation and anti-botnet services guard against botnet activity and DDoS attacks. FortiGuard Labs blocks over 500 million malicious/phishing/spam URLs weekly, and blocks 32,000 botnet command-and-control attempts every minute, demonstrating the robust protection offered through Fortinet.

### SaaS and data security

SaaS and data security services cover key security needs for application use and data protection. This includes data loss prevention to ensure visibility, management, and protection (blocking exfiltration) of data in motion across networks, clouds, and users. Our inline cloud access security broker service protects data in motion, at rest, and in the cloud, enforcing compliance standards and managing account, user, and cloud app usage. Services also assess infrastructure, validate configurations, and highlight risks and vulnerabilities, including IoT device detection and vulnerability correlation.

### Zero-Day threat prevention

Zero-day threat prevention is achieved through AI-powered inline malware prevention to analyze file content to identify and block unknown malware in real time, delivering sub-second protection across all NGFWs. The service also integrates the MITRE ATT&CK matrix to speed up investigations. Integrated into FortiGate NGFWs, the service provides comprehensive defense by blocking unknown threats, streamlining incident response, and reducing security overhead.

### OT security

With over 1000 virtual patches, 1100+ OT applications, and 3300+ protocol rules, integrated OT security capabilities detect threats targeting OT infrastructure, perform vulnerability correlation, apply virtual patching, and utilize industry-specific protocol decoders for robust defense of OT environments and devices.



Available in



Appliance



Virtual



Hosted



Cloud



Container

## FortiOS Everywhere

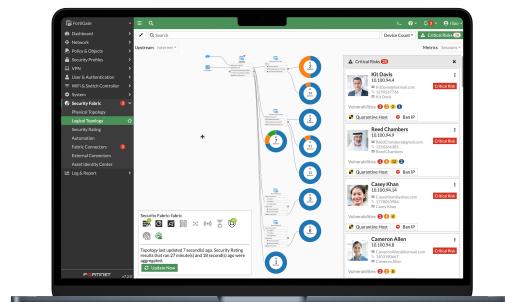
### FortiOS, Fortinet's Real-Time Network Security Operating System

FortiOS is the operating system that powers Fortinet Security Fabric platform, enabling enforcement of security policies and holistic visibility across the entire attack surface. FortiOS provides a unified framework for managing and securing networks, cloud-based, hybrid, or a convergence of IT, OT, and IoT. FortiOS enables seamless and efficient interoperation across Fortinet products with consistent and consolidated AI-powered protection across today's hybrid environments.

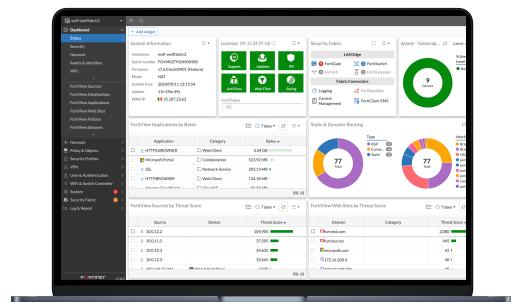
Unlike traditional point solutions, Fortinet adopts a holistic approach to cybersecurity, aiming to reduce complexities, eliminate security silos, and improve operational efficiencies. By consolidating security functions into a single platform, FortiOS simplifies management, reduces costs, and enhances overall security posture. Together, FortiGate and FortiOS create intelligent, adaptive protection to help organizations reduce complexity, eliminate security silos, and optimize user experience.

By integrating generative AI (GenAI), FortiOS further enhances the ability to analyze network traffic and threat intelligence, detects deviations or anomalies more effectively, and provides more precise remediation recommendations, ensuring minimum performance impact without compromising security.

Learn more about what's new in FortiOS. <https://www.fortinet.com/products/fortigate/fortios>



Intuitive easy to use view into the network and endpoint vulnerabilities



Comprehensive view of network performance, security, and system status

## Fortinet ASICs: Unrivaled Security, Unprecedented Performance

### Powered by the only purpose-built SPU



Traditional firewalls cannot protect against today's content and connection-based threats because they rely on off-the-shelf general-purpose central processing units (CPUs), leaving a dangerous security gap. Fortinet's custom SPUs deliver the power you need to radically increase speed, scale, and efficiency while greatly improving user experience and reducing footprint and power requirements. Fortinet's SPUs deliver up to 520 Gbps of protected throughput to detect emerging threats and block malicious content while ensuring your network security solution does not become a performance bottleneck.

Fortinet ASICs are designed to be energy-efficient, leading to lower power consumption and improved TCO. They deliver industry-leading throughput, handle more traffic and perform security inspections faster, reduce latency for quicker packet processing and minimize network delays.

Fortinet SPUs are designed with integrated security functions like zero trust, SSL, IPS, and VXLAN to name but a few, dramatically improving the performance of these functions that competitors traditionally implement in software.

### Secure SD-WAN ASIC SP4

- Combines a RISC-based CPU with Fortinet's proprietary SPU content and network processors for unmatched performance
- Delivers the industry's fastest application identification and steering for efficient business operations
- Accelerates IPsec VPN performance for the best user experience on direct internet access
- Enables best-of-breed NGFW security and deep SSL inspection with high performance
- Extends security to the access layer to enable SD-Branch transformation with accelerated and integrated switch and access point connectivity

## Unified Management for Optimal Security and Efficiency

Whether you are a small business or a large enterprise, Fortinet provides centralized control, visibility, and automation for your security infrastructure.

### FortiManager: Centralized management at scale for distributed enterprises

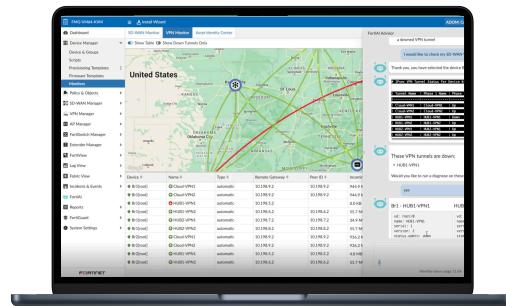


FortiManager, powered by FortiAI, is a centralized management solution for the Fortinet Security Fabric. It streamlines mass provisioning and policy management for FortiGate, FortiGate VM, cloud security, SD-WAN, SD-Branch, FortiSASE, and ZTNA in hybrid environments. Additionally, FortiManager provides real-time monitoring of the entire managed infrastructure and automates network operation workflows. Leveraging GenAI in FortiAI, it further enhances Day 0-1 configurations and provisioning, and Day N troubleshooting and maintenance, unlocking the full potential of the Fortinet Security Fabric and significantly boosting operational efficiency.

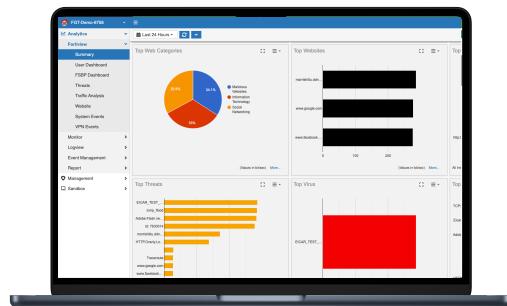
### FortiGate Cloud: Simplified management for small and mid-size businesses



FortiGate Cloud is a SaaS service offering simplified management, security analytics, and reporting for Fortinet FortiGate NGFWs to help you more efficiently manage your devices and reduce cyber risk. It simplifies the initial deployment, setup, and ongoing management of FortiGates and downstream connected devices such as FortiAP, FortiSwitch, and FortiExtender, with zero-touch provisioning. It provides real-time and historical visibility into traffic analytics and security threats to reduce risks and improve security posture. View various threats, web traffic, and system events stored in the cloud for up to a year, with predefined reports to meet compliance and deliver actionable insights.



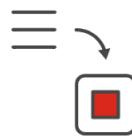
*GenAI in FortiManager helps manage networks effortlessly—generate configuration and policy scripts, troubleshoot issues, and execute recommended actions.*



*FortiGate Cloud provides intuitive management and analytics solution with end-to-end visibility, logging and reporting for SMB.*

## FortiConverter Service

### Migration to FortiGate NGFW made easy

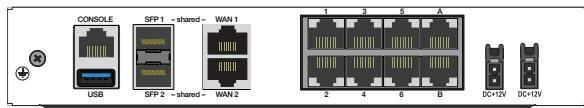
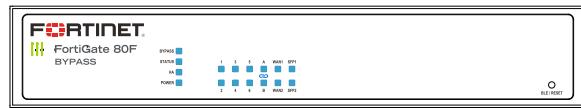


The FortiConverter Service provides hassle-free migration to help organizations transition quickly and easily from a wide range of legacy firewalls to FortiGate NGFWs. The service eliminates errors and redundancy by employing best practices with advanced methodologies and automated processes. Organizations can accelerate their network protection with the latest FortiOS technology.

## Hardware

### FortiGate 80F/81F

#### FortiGate 80F-Bypass



#### Interfaces

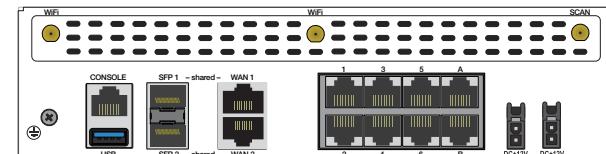
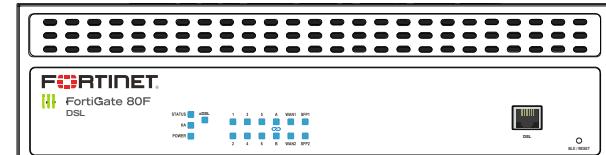
1. 2 x GE RJ45/SFP Shared Media Ports
2. 2 x WAN GE RJ45 Ports, FG-80F-Bypass model only:  
1x Bypass GE RJ45 Port Pair (WAN1 and Port1, default configuration)

### FortiGate 80F-DSL

#### FortiGate 80F/81F-POE

#### FortiWiFi 80F/81F-2R

#### FortiWiFi 81F-2R-POE



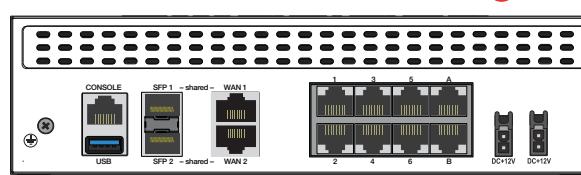
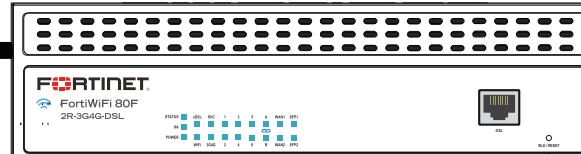
3. 6 x GE RJ45\* Ports

4. 2 x GE RJ45\* FortiLink Ports

5. 1 x DSL RJ11 Port (for 80F-DSL only)

\* POE/+ ports for POE Variants

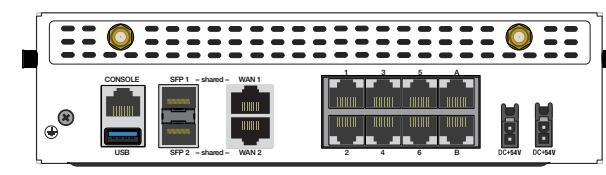
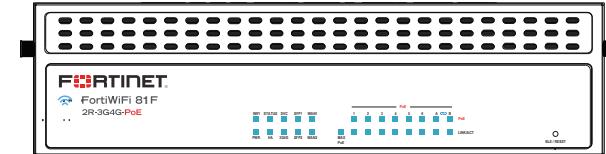
### FortiWiFi 80F/81F-2R-3G4G-DSL



#### Interfaces

1. 1 x DSL Port (RJ11)
2. 2 x GE RJ45/SFP Shared Media Ports
3. 6 x GE RJ45 Ports
4. 2 x GE RJ45 FortiLink Ports

### FortiWiFi 81F-2R-3G4G-POE



#### Interfaces

1. 2 x GE RJ45/SFP Shared Media Ports
2. 6 x GE RJ45 POE/+ Ports
3. 2 x GE RJ45 POE/+ FortiLink Ports

## Hardware Features



### Superior wireless coverage

A built-in dual-band, dual-stream access point is integrated on the FortiWiFi 80F series, which provides the industry's high-speed WiFi-6 (802.11ax) wireless access.



### Trusted Platform Module (TPM)

The FortiGate 80F series features a dedicated module that hardens physical networking appliances by generating, storing, and authenticating cryptographic keys. Hardware-based security mechanisms protect against malicious software and phishing attacks.



### Access layer security

FortiLink protocol enables you to converge security and network access by integrating the FortiSwitch into the FortiGate as a logical extension of the firewall. These FortiLink-enabled ports can be reconfigured as regular ports as needed.



### Compact and reliable form factor

Designed for small environments, the FortiGate can be on a desktop or wall-mounted. It is small, lightweight, yet highly reliable with superior meantime between failures, minimizing the chance of network disruption.

# Specifications

	FG-80F	FG-81F	FG-80F-BYPASS	FG-80F-POE	FG-81F-POE
<b>Interfaces and Modules</b>					
GE RJ45/SFP Shared Media Pairs	2	2	2	2	2
GE RJ45 Internal Ports	6	6	6	—	—
GE RJ45 FortiLink Ports (Default)	2	2	2	—	—
GE RJ45 PoE/+ Ports	—	—	—	6	6
GE RJ45 PoE/+ FortiLink Ports (Default)	—	—	—	2	2
Bypass GE RJ45 Port Pair (WAN1 & Port1, default configuration)	—	—	Yes	—	—
Wireless Interface	—	—	—	—	—
USB Ports 3.0	1	1	1	1	1
Console (RJ45)	1	1	1	1	1
Internal Storage	—	1x 128 GB SSD	—	—	1x 128 GB SSD
Trusted Platform Module (TPM)	Yes	Yes	Yes	Yes	Yes
Bluetooth Low Energy (BLE)	Yes	Yes	Yes	Yes	Yes
Signed Firmware Hardware Switch	—	—	—	—	—
<b>System Performance — Enterprise Traffic Mix</b>					
IPS Throughput <sup>2</sup>			1.4 Gbps		
NGFW Throughput <sup>2,4</sup>			1 Gbps		
Threat Protection Throughput <sup>2,5</sup>			900 Mbps		
<b>System Performance and Capacity</b>					
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)			10 / 10 / 7 Gbps		
Firewall Latency (64 byte, UDP)			3.23 µs		
Firewall Throughput (Packet per Second)			10.5 Mpps		
Concurrent Sessions (TCP)			1.5 Million		
New Sessions/Second (TCP)			45 000		
Firewall Policies			5000		
IPsec VPN Throughput (512 byte) <sup>1</sup>			6.5 Gbps		
Gateway-to-Gateway IPsec VPN Tunnels			200		
Client-to-Gateway IPsec VPN Tunnels			2500		
SSL-VPN Throughput			950 Mbps		
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)			200		
SSL Inspection Throughput (IPS, avg HTTPS) <sup>3</sup>			715 Mbps		
SSL Inspection CPS (IPS, avg. HTTPS) <sup>3</sup>			700		
SSL Inspection Concurrent Session (IPS, avg HTTPS) <sup>3</sup>			100 000		
Application Control Throughput (HTTP 64K) <sup>2</sup>			1.8 Gbps		
CAPWAP Throughput (HTTP 64K)			9 Gbps		
Virtual Domains (Default / Maximum)			10 / 10		
Maximum Number of FortiSwitches Supported			24		
Maximum Number of FortiAPs (Total /Tunnel)			96 / 48		
Maximum Number of FortiTokens			500		
High Availability Configurations			Active-Active, Active-Passive, Clustering		

Note: All performance values are "up to" and vary depending on system configuration.

<sup>1</sup> IPsec VPN performance test uses AES256-SHA256.

<sup>2</sup> IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.

<sup>3</sup> SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

<sup>4</sup> NGFW performance is measured with Firewall, IPS and Application Control enabled.

<sup>5</sup> Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

## Specifications

	FG-80F	FG-81F	FG-80F-BYPASS	FG-80F-POE	FG-81F-POE
<b>Dimensions and Power</b>					
<b>Height x Width x Length (inches)</b>	1.6 x 8.5 x 7.0	1.6 x 8.5 x 7.0	1.6 x 8.5 x 7.0	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0
<b>Height x Width x Length (mm)</b>	40 x 216 x 178	40 x 216 x 178	40 x 216 x 178	60 x 216 x 178	60 x 216 x 178
<b>Weight</b>	2.4 lbs (1.1 kg)	2.4 lbs (1.1 kg)	2.6 lbs (1.2 kg)	3.1 lbs (1.4 kg)	3.1 lbs (1.4 kg)
<b>Form Factor</b> (supports EIA/non-EIA standards)	Desktop/ Wall Mount/ Rack Tray				
<b>Operating Environment and Certifications</b>					
<b>Input Rating</b>	12V DC, 3A (dual redundancy optional)	12V DC, 3A (dual redundancy optional)	12V DC, 3A (dual redundancy optional)	+54V DC, 3A (dual redundancy optional)	+54V DC, 3A (dual redundancy optional)
<b>Power Required (Redundancy Optional)</b>	Powered by up to 2 External DC Power Adapters (1 adapter included), 100–240V AC, 50/60 Hz				
<b>Maximum Current</b>	115VAC/0.4A, 230VAC/0.2A	115VAC/0.4A, 230VAC/0.2A	115VAC/0.4A, 230VAC/0.2A	115VAC/2.2A, 230VAC/1.1A	115VAC/1.2A, 230VAC/0.6A
<b>Total Available PoE Power Budget*</b>	—	—	—	96W	96W
<b>Power Consumption (Average / Maximum)</b>	12.69 W / 15.51 W	13.5 W / 16.5 W	12.6 W / 15.4 W	96 W / 118 W	98 W / 137 W
<b>Heat Dissipation</b>	52.55 BTU/h	56.30 BTU/h	52.55 BTU/h	402.26 BTU/h	467.5 BTU/h
<b>Operating Temperature</b>	32°F to 104°F (0°C to 40°C)				
<b>Storage Temperature</b>	-31°F to 158°F (-35°C to 70°C)				
<b>Humidity</b>	10% to 90% non-condensing				
<b>Noise Level</b>	Fanless 0 dBA	Fanless 0 dBA	Fanless 0 dBA	31.56 dBA	31.56 dBA
<b>Operating Altitude</b>	Up to 7400 ft (2250 m)				
<b>Compliance</b>	FCC, ICES, CE, RCM, VCCI, BSMI, UL/cUL, CB				
<b>Certifications</b>	USGv6/IPv6				

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

# Specifications

	FORTIWIFI 80F-2R	FORTIWIFI 81F-2R	FORTIWIFI 81F-2R-POE
<b>Hardware Specifications</b>			
GE RJ45/SFP Shared Media Pairs	2	2	2
GE RJ45 Internal Ports	6	6	—
GE RJ45 FortiLink Ports (Default)	2	2	—
GE RJ45 PoE/+ Ports	—	—	6
GE RJ45 PoE/+ FortiLink Ports (Default)	—	—	2
Bypass GE RJ45 Port Pair (WAN1 and Port1, default configuration)	—	—	—
Wireless Interface	Dual WiFi Radio (5 GHz, 2.4 GHz) 802.11a/b/g/n/ac/ax + 1 Scanning Radio		
Antenna Ports (SMA)	3	3	3
USB Ports 3.0	1	1	1
Console (RJ45)	1	1	1
Internal Storage	—	1x 128 GB SSD	1x 128 GB SSD
Trusted Platform Module (TPM)	Yes	Yes	Yes
Bluetooth Low Energy (BLE)	Yes	Yes	Yes
Signed Firmware Hardware Switch	—	—	—
<b>Radio Specifications</b>			
Multiple User (MU) MIMO	2x2		
Maximum Wi-Fi Speeds	574 Mbps @ 2.4 GHz, 1201 Mbps @ 5 GHz		
Maximum Tx Power	23 dBm @ 2.4 GHz, 22 dBm @ 5 GHz		
Antenna Gain	4.5dBi @ 2.4GHz, 5.5dBi @ 5GHz		
<b>System Performance — Enterprise Traffic Mix</b>			
IPS Throughput <sup>2</sup>	1.4 Gbps		
NGFW Throughput <sup>2,4</sup>	1 Gbps		
Threat Protection Throughput <sup>2,5</sup>	900 Mbps		
<b>System Performance</b>			
Firewall Throughput (1518 / 512 / 64 byte UDP packets)	10/10/7 Gbps		
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Maximum Number of FortiAPs (Total / Tunnel Mode)	96 / 48		
Maximum Number of FortiTokens	500		
High Availability Configurations	Active-Active, Active-Passive, Clustering		

Note: All performance values are "up to" and vary depending on system configuration.

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<sup>5</sup> Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

## Specifications

	FORTIWIFI 80F-2R	FORTIWIFI 81F-2R	FORTIWIFI 81F-2R-POE
<b>Dimensions</b>			
Height x Width x Length (inches)	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0
Height x Width x Length (mm)	60 x 216 x 178	60 x 216 x 178	60 x 216 x 178
Weight	3.3 lbs (1.5 kg)	3.3 lbs (1.5 kg)	3.3 lbs (1.5 kg)
Form Factor	Desktop/ Wall Mount/ Rack Tray		
<b>Operating Environment and Certifications</b>			
Input Rating	12V DC, 5A (dual redundancy optional)	12V DC, 5A (dual redundancy optional)	+54V DC, 5A (dual redundancy optional)
Power Required (Redundancy Optional)	Powered by up to 2 External DC Power Adapters (1 adapter included), 100–240V AC, 50/60 Hz		
Maximum Current	115VAC/0.42A, 230VAC/0.21A	115VAC/0.42A, 230VAC/0.28A	115VAC/0.9A, 230VAC/0.6A
Total Available PoE Power Budget*	—	—	96W
Power Consumption (Average / Maximum)	22.9 W / 27.9 W	24.79 W / 30.29 W	107.4 W / 131.3 W
Heat Dissipation	95.26 BTU/h	103.29 BTU/h	441.4 BTU/h
Operating Temperature	32°F to 104°F (0°C to 40°C)		
Storage Temperature	-31°F to 158°F (-35°C to 70°C)		
Humidity	10% to 90% non-condensing		
Noise Level	24.14 dBA	24.14 dBA	31.56 dBA
Operating Altitude	Up to 7400 ft (2250 m)		
Compliance	FCC, ICES, CE, RCM, VCCI, BSMI, UL/cUL, CB		
Certifications	USGv6/IPv6		

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

# Specifications

	FG-80F-DSL	FWF-80F-2R-3G4G-DSL	FWF-81F-2R-3G4G-DSL	FWF-81F-2R-3G4G-POE
<b>Interfaces and Modules</b>				
GE RJ45/SFP Shared Media Pairs	2	2	2	2
GE RJ45 Internal Ports	6	6	6	—
GE RJ45 FortiLink Ports (Default)	2	2	2	—
GE RJ45 POE/+ Ports	—	—	—	6
GE RJ45 POE/+ FortiLink Ports (Default)	—	—	—	2
DSL RJ11 Port	1	1	1	—
Cellular Modem	—	3G4G / LTE	3G4G / LTE	3G4G / LTE
Wireless Interface	—	Single Radio (2.4GHz/5GHz), 802.11a/b/g/n/ac-W2 Dual WiFi Radio (5 GHz, 2.4 GHz) 802.11a/b/g/n/ac/ax + 1 Scanning Radio	Dual WiFi Radio (5 GHz, 2.4 GHz) 802.11a/b/g/n/ac/ax + 1 Scanning Radio	Dual WiFi Radio (5 GHz, 2.4 GHz) 802.11a/b/g/n/ac/ax + 1 Scanning Radio
Antenna Ports (SMA)	—	6	6	6
USB Ports	1	1	1	1
Console Port (RJ45)	1	1	1	1
SIM Slots (Nano SIM)	—	2	2	2
Internal Storage	—	—	128 GB	128 GB
Trusted Platform Module (TPM)	—	Yes	Yes	Yes
Bluetooth Low Energy (BLE)	—	Yes	Yes	Yes
Signed Firmware Hardware Switch	—	—	—	—
<b>System Performance — Enterprise Traffic Mix</b>				
IPS Throughput <sup>2</sup>		1.4 Gbps		
NGFW Throughput <sup>2,4</sup>		1 Gbps		
Threat Protection Throughput <sup>2,5</sup>		900 Mbps		
<b>System Performance and Capacity</b>				
IPv4 Firewall Throughput (1518 / 512 / 64 byte, UDP)		10 / 10 / 7 Gbps		
Firewall Latency (64 byte, UDP)		3.23 µs		
Firewall Throughput (Packet per Second)		10.5 Mpps		
Concurrent Sessions (TCP)		1.5 Million		
New Sessions/Second (TCP)		45 000		
Firewall Policies		5 000		
IPsec VPN Throughput (512 byte) <sup>1</sup>		6.5 Gbps		
Gateway-to-Gateway IPsec VPN Tunnels		200		
Client-to-Gateway IPsec VPN Tunnels		2500		
SSL-VPN Throughput		950 Mbps		
Concurrent SSL-VPN Users (Recommended Maximum, Tunnel Mode)		200		
SSL Inspection Throughput (IPS, avg. HTTPS) <sup>3</sup>		715 Mbps		
SSL Inspection CPS (IPS, avg. HTTPS) <sup>3</sup>		700		
SSL Inspection Concurrent Session (IPS, avg. HTTPS) <sup>3</sup>		100 000		
Application Control Throughput (HTTP 64K) <sup>2</sup>		1.8 Gbps		
CAPWAP Throughput (HTTP 64K)		9 Gbps		
Virtual Domains (Default / Maximum)		10 / 10		
Maximum Number of FortiSwitches Supported		24		
Maximum Number of FortiAPs (Total / Tunnel)		96 / 48		
Maximum Number of FortiTokens		500		
High Availability Configurations		Active-Active, Active-Passive, Clustering		

Note: All performance values are "up to" and vary depending on system configuration.

<sup>1</sup> IPsec VPN performance test uses AES256-SHA256.

<sup>2</sup> IPS (Enterprise Mix), Application Control, NGFW and Threat Protection are measured with Logging enabled.

<sup>3</sup> SSL Inspection performance values use an average of HTTPS sessions of different cipher suites.

<sup>4</sup> NGFW performance is measured with Firewall, IPS and Application Control enabled.

<sup>5</sup> Threat Protection performance is measured with Firewall, IPS, Application Control and Malware Protection enabled.

## Specifications

	FG-80F-DSL	FWF-80F-2R-3G4G-DSL	FWF-81F-2R-3G4G-DSL	FWF-81F-2R-3G4G-POE
<b>Dimensions and Power</b>				
Height x Width x Length (inches)	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0	2.4 x 8.5 x 7.0
Height x Width x Length (mm)	60 x 216 x 178	60 x 216 x 178	60 x 216 x 178	60 x 216 x 178
Weight	3.07 lbs (1.39 kg)	3.5 lbs (1.6 kg)	3.5 lbs (1.6 kg)	3.5 lbs (1.6 kg)
Form Factor (supports EIA/non-EIA standards)				
Input Rating	12V DC, 5A	12V DC, 5A	12V DC, 5A	54V DC, 2.78A
Power Required (Redundancy Optional)	Powered by up to two external DC power adapters (one adapter included), 100-240V AC, 50/60 Hz			
Current (Maximum)	115Vac/0.9A, 230Vac/0.6A			
Total Available PoE Power Budget*	—	—	—	96W
Power Consumption (Average / Maximum)	28.0 W / 31.6 W	28.07 W / 34.31 W	29.2 W / 35.6 W	109.3 W / 133.6 W
Heat Dissipation	108 BTU/h	117.0 BTU/h	121.5 BTU/h	455.6 BTU/h
<b>Operating Environment and Certifications</b>				
Operating Temperature	32°F to 104°F (0°C to 40°C)			
Storage Temperature	-31°F to 158°F (-35°C to 70°C)			
Humidity	10% to 90% non-condensing	20% to 90% non-condensing	20% to 90% non-condensing	20% to 90% non-condensing
Noise Level	24.14 dBA	24.14 dBA	24.14 dBA	31.56 dBA
Operating Altitude	Up to 7400 ft (2250 m)			
Compliance	FCC, ICES, CE, RCM, VCCI, BSMI, UL/cUL, CB			
Certifications	USGv6/IPv6			
<b>Radio Specifications</b>				
Multiple (MU) MIMO	N/A	3x3		
Maximum Wi-Fi Speeds	N/A	1300 Mbps @ 5 GHz, 450 Mbps @ 2.4 GHz		
Maximum Tx Power	N/A	20 dBm		
Antenna Gain	N/A	3.5 dBi @ 5 GHz, 5 dBi @ 2.4 GHz		
<b>3G4G Modem</b>				
Maximum Tx Power	N/A	20 dBm		
Regions Supported	N/A	All Regions		
Modem Model	N/A	Sierra Wireless EM7565 (2 SIM Slots, Active/Passive)		
LTE Category	N/A	CAT-12		
LTE Bands	N/A	B1, B2, B3, B4, B5, B7, B8, B9, B12, B13, B18, B19, B20, B26, B28, B29, B30, B32, B41, B42, B43, B46, B48, B66		
UMTS/HSPA+	N/A	B1, B2, B4, B5, B6, B8, B9, B19		
WCDMA	N/A	—		
CDMA 1xRTT/EV-DO Rev A	N/A	—		
GSM/GPRS/EDGE	N/A	—		
Module Certifications	N/A	FCC, ICES, CE, RCM, VCCI, BSMI, UL/cUL, CB		
Diversity	N/A	Yes		
MIMO	N/A	Yes		
GNSS Bias	N/A	Yes		
<b>xDSL Modem - Supported Mode</b>				
VDSL2	✓	✓	✓	N/A
ADSL2	✓	✓	✓	N/A
ADSL2+	✓	✓	✓	N/A
G.DMT	✓	✓	✓	N/A
T1.413	✓	✓	✓	N/A
G.Lite	✓	✓	✓	N/A
<b>xDSL Modem - Supported Type</b>				
Annex A, B, I, J, M & L	✓	✓	✓	N/A

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

## Subscriptions

Service Category	Service Offering	A-la-carte	Bundles		
			Enterprise Protection	Unified Threat Protection	Advanced Threat Protection
FortiGuard Security Services	IPS — IPS, Malicious/Botnet URLs	•	•	•	•
	Anti-Malware Protection (AMP)—AV, Botnet Domains, Mobile Malware, Virus Outbreak Protection, Content Disarm and Reconstruct <sup>3</sup> , AI-based Heuristic AV, FortiGate Cloud Sandbox	•	•	•	•
	URL, DNS and Video Filtering — URL, DNS and Video <sup>3</sup> Filtering, Malicious Certificate	•	•	•	•
	Anti-Spam		•	•	
	AI-based Inline Malware Prevention <sup>3</sup>	•	•		
	Data Loss Prevention (DLP) <sup>1</sup>	•	•		
	Attack Surface Security — IoT Device Detection, IoT Vulnerability Correlation and Virtual Patching, Security Rating, Outbreak Check	•	•		
	OT Security—OT Device Detection, OT vulnerability correlation and Virtual Patching, OT Application Control and IPS <sup>1</sup>	•			
	Application Control		-----included with FortiCare Subscription-----		
	Inline CASB <sup>3</sup>		-----included with FortiCare Subscription-----		
SD-WAN and SASE Services	SD-WAN Underlay Bandwidth and Quality Monitoring	Models up to FG/FWF-60F series			
	SD-WAN Underlay and Application Monitoring Service	FG-70F series and above			
	SD-WAN Overlay-as-a-Service	•			
	SD-WAN Connector for FortiSASE Secure Private Access	•			
	SASE expansion for SD-WAN (SD-WAN SPA Connector license plus FortiSASE starter kit for n* users) <sup>2</sup>	Selected models only			
	SASE connector for FortiSASE Secure Edge Management (with 10Mbps Bandwidth)	Desktop models only			
NOC and SOC Services	FortiConverter Service for one time configuration conversion	•	•		
	Managed FortiGate Service—available 24x7, with Fortinet NOC experts performing device setup, network, and policy change management	•			
	FortiGate Cloud—Management, Analysis, and One Year Log Retention	•			
	FortiManager Cloud	•			
	FortiAnalyzer Cloud	•			
	FortiGuard SOCaaS—24x7 cloud-based managed log monitoring, incident triage, and SOC escalation service	•			
Hardware and Software Support	FortiCare Essentials	Desktop models only			
	FortiCare Premium	•	•	•	•
	FortiCare Elite	•			
Base Services	Device/OS Detection, GeolPs, Trusted CA Certificates, Internet Services and Botnet IPs, DDNS (v4/v6), Local Protection, PSIRT Check, Anti-Phishing		-----included with FortiCare Subscription-----		

1. Full features available when running FortiOS 7.4.1.

2. See the FortiSASE Ordering Guide for supported models and their associated number of user licenses.

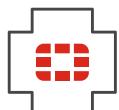
3. Not available for FortiGate/FortiWiFi 40F, 60E, 60F, 80E, and 90E series from 7.4.4 onwards. Not available for FortiGate/FortiWiFi 30G and 50G series in any OS build.

### FortiGuard AI-Powered Security Bundles for FortiGate



FortiGuard AI-Powered Security Bundles provide a comprehensive and meticulously curated selection of security services to combat known, unknown, zero-day, and emerging AI-based threats. These services are designed to prevent malicious content from breaching your defenses, protect against web-based threats, secure devices throughout IT/OT/IoT environments, and ensure the safety of applications, users, and data. All bundles include FortiCare Premium Services featuring 24x7x365 availability, one-hour response for critical issues, and next-business-day response for noncritical matters.

### FortiCare Services



Fortinet prioritizes customer success through FortiCare Services, optimizing the Fortinet Security Fabric solution. Our comprehensive life-cycle services include Design, Deploy, Operate, Optimize, and Evolve. The FortiCare Elite, one of the service offerings, provides heightened SLAs and swift issue resolution with a dedicated support team. This advanced support option includes an extended end-of-engineering support of 18 months, providing flexibility and access to the intuitive FortiCare Elite portal for a unified view of device and security health, streamlining operational efficiency and maximizing Fortinet deployment performance.



## Ordering Information

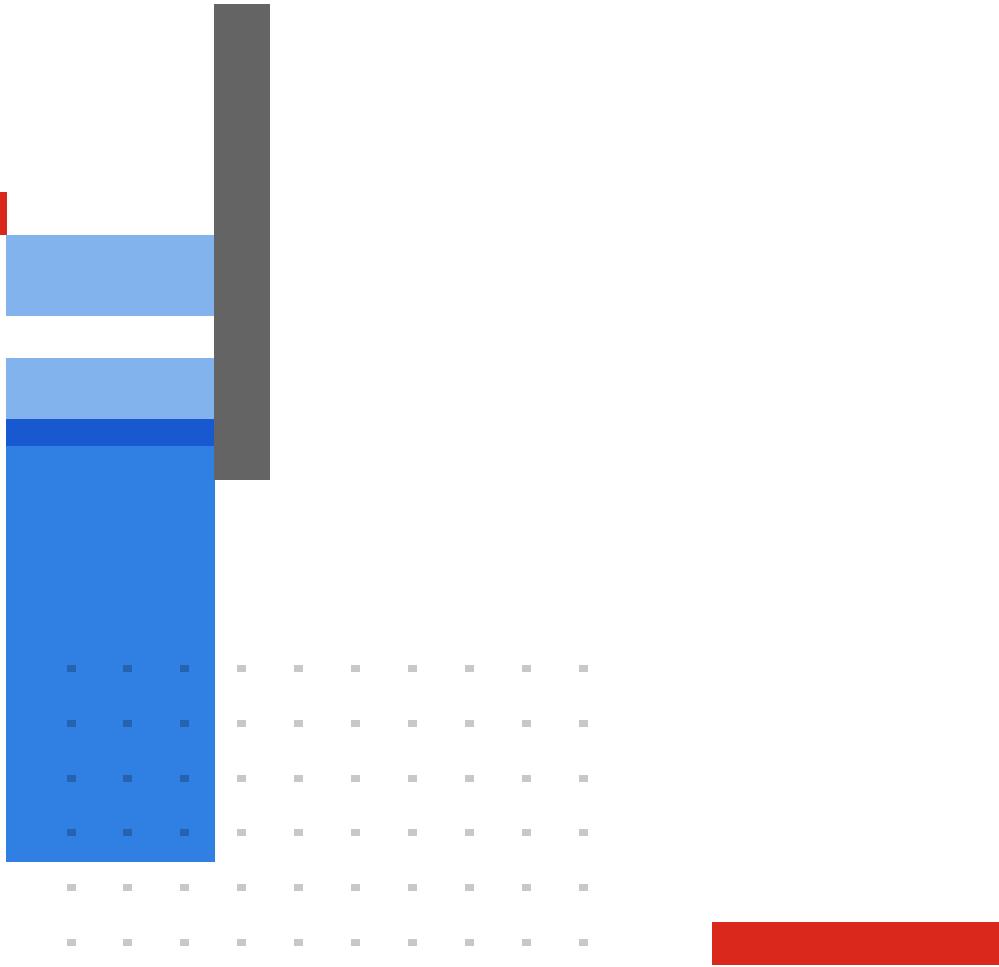
Product	SKU	Description
FortiGate 80F	FG-80F	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports.
FortiGate 80F	FG-80F-HA	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiGate 81F	FG-81F	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, 128GB onboard storage.
FortiGate 81F	FG-81F-HA	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, 128GB SSD. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiGate 80F-Bypass	FG-80F-Bypass	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, may be configured with 1 pair of LAN bypass.
FortiGate 80F-Bypass	FG-80F-BYPASS-HA	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, may be configured with 1 pair of LAN bypass. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiGate 80F-POE	FG-80F-POE	8 x GE PoE ports, 2 x RJ45/SFP shared media WAN ports.
FortiGate 80F-POE	FG-80F-POE-HA	8 x GE PoE ports, 2 x RJ45/SFP shared media WAN ports. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiGate 81F-POE	FG-81F-POE	8 x GE RJ45 PoE ports, 2 x RJ45/SFP shared media WAN ports, 128GB SSD.
FortiGate 81F-POE	FG-81F-POE-HA	8 x GE RJ45 PoE ports, 2 x RJ45/SFP shared media WAN ports, 128GB SSD. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiGate 80F-DSL	FG-80F-DSL	8 x GE RJ45 Ports, 2 x RJ45/SFP shared media WAN ports, with embedded DSL module.
FortiGate 80F-DSL	FG-80F-DSL-HA	8 x GE RJ45 Ports, 2 x RJ45/SFP shared media WAN ports, with embedded DSL module. FG-XX-HA SKUs must be bought in pairs and entitle HA pair to leverage single service contracts.
FortiWiFi 80F-2R	FWF-80F-2R-[RC]	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, dual WiFi radio.
FortiWiFi 81F-2R	FWF-81F-2R-[RC]	8 x GE RJ45 ports, 2 x RJ45/SFP shared media WAN ports, dual WiFi radio, 128GB SSD.
FortiWiFi 81F-2R-POE	FWF-81F-2R-POE-[RC]	8 x GE RJ45 RJ45 PoE ports, 2 x RJ45/SFP shared media WAN ports, dual WiFi radio, 128GB SSD.
FortiWiFi-80F-2R-3G4G-DSL	FWF-80F-2R-3G4G-DSL-[RC]	8 x GE RJ45 Ports, 2 x GE RJ45 WAN Ports, dual WiFi radio, with embedded DSL and 3G/4G/LTE modules.
FortiWiFi-81F-2R-3G4G-DSL	FWF-81F-2R-3G4G-DSL-[RC]	8 x GE RJ45 Ports, 2 x GE RJ45 WAN Ports, dual WiFi radio, with embedded DSL and 3G/4G/LTE modules, 128GB SSD onboard storage.
FortiWiFi-81F-2R-3G4G-PoE	FWF-81F-2R-3G4G-PoE-[RC]	8 x GE RJ45 PoE+ Ports, 2 x RJ45/SFP shared media WAN ports, dual WiFi radio, with embedded 3G/4G/LTE modules, 128GB SSD onboard storage.
Accessories	SKU	Description
AC Power Adaptor	SP-FG60E-PDC-5	Pack of 5 AC power adaptors for FG/FWF 60E/61E, 60F/61F, 70/71F, 70/71G, 80E/81E, 80/81F, 90/91G and FDC-100G. Power cable SP-FG60CPCOR-XX sold separately.
AC Power Adaptor	SP-FWF80F-PDC-5	Pack of 5 AC power adaptors for FWF-80/81F-2R, power cable SP-FG60CPCOR-XX sold separately.
AC Power Adaptor	SP-FG80E-POE-PDC	AC power adaptor for FG-60E-POE, FG-80E-POE, FG-81E-POE, FG-80/81F-POE, FWF-81F-2R-POE power cable SP-FG60CPCOR-XX sold separately.
Rack Mount Tray	SP-RACKTRAY-02	Rack mount tray for all FortiGate E series and F series desktop models.
Wall Mount Kit	SP-FG60F-MOUNT-20	Pack of 20 wall mount kits for FG/FWF-40F series, FG/FWF-60F series, FG-80F, FG-81F and FG-80F-Bypass.
Transceivers	SKU	Description
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.
1GE SFP Transceiver, 90km Range, -40°/85°C Operation	FR-TRAN-ZX	1G SFP transceivers, -40°/85°C operation, 90km range for all systems with SFP Slots.

RC (regional code): A, B, D, E, F, I, J, N, P, S, V, and Y

Visit <https://www.fortinet.com/resources/ordering-guides> for related ordering guides.

## Fortinet Corporate Social Responsibility Policy

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