FortiExtender 5G/LTE Gateways

Available in

Appliance

Extend, Ensure, and Secure Your Network

FortiExtender indoor 5G/LTE gateways offer scalable, secure, and resilient connectivity for enterprise networks. Driven by Fortinet's unique approach of Secure Networking, FortiExtender allows organizations business continuity, improved network availability while securing connectivity with wired broadband and cellular networks.

From secure point of sale (POS) systems, to factories, healthcare facilities, microbranches, and kiosks—FortiExtender provides reliable broadband access to the internet and extends the value of the Fortinet Security Fabric to support fluid business operations dependent on remote device connectivity.

Highlights

- Improves network uptime
- Extends the network edge
- Provides out of band management (OOB)
- Integrates with Fortinet Secure SD-WAN
- Enables network fabrics with VxLAN extension
- Cloud management and on-premises management options
- Rich interface for multiple LAN and WAN connections
- Small form-factor for easy deployment and optimal cellular signal

Hardware and Interfaces

FortiExtender 511F

The FortiExtender 511F Interface offers an SFP port for fiber cabling deployments greater than 100 meters away from the FortiGate or network switch, as well as console and USB 2.0 ports for out of band management (OOB).
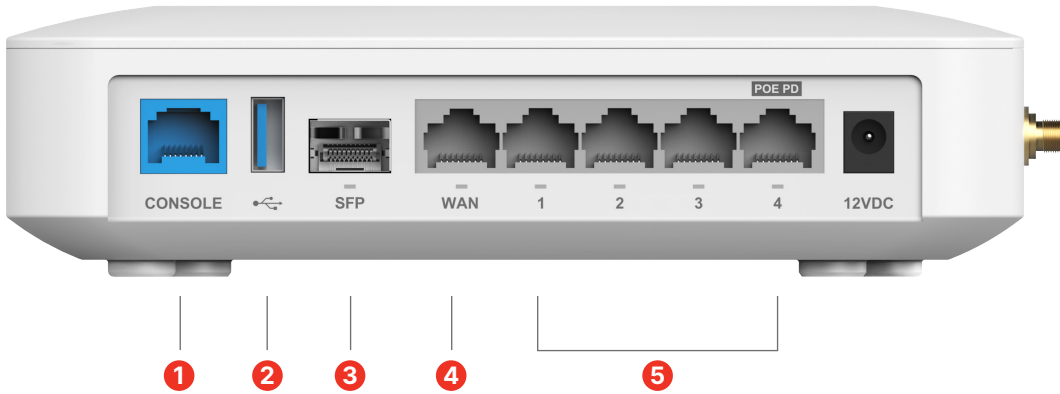
Interfaces

1. 1x Console Port

2. 1x USB 2.0 Port

3. 1x GE SFP Port

4. 1x GE RJ45 WAN Port

5. 4x GE RJ45 Ethernet Ports (Port 4 POE PD)

FortiExtender 511F

For interface details, please see the QuickStart Guide at https://docs.fortinet.com/product/fortiextender/7.6

Hardware and Interfaces

FortiExtender 511G

The FortiExtender 511G Interface offers an SFP port for fiber cabling deployments greater than 100 meters away from the FortiGate or network switch, as well as console and USB 2.0 ports for out of band management (OOB).
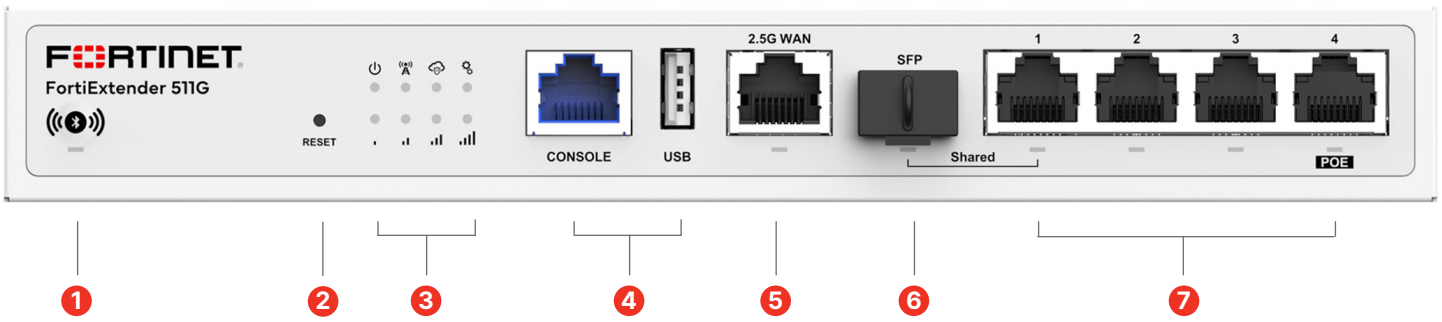
Interfaces

1. BLE
2. RESET
3. LED Status

4. 1x Console Port (RJ45) CLI Management
   1x USB 2.0 Port (USB-A)
5. 1× 2.5 G WAN Port (RJ45)

6. 1x SFP Port
7. 4x RJ45 Ports

FortiExtender 511G-WiFi

The FortiExtender 511G-WiFi Interface offers an SFP port for fiber cabling deployments greater than 100 meters away from the FortiGate or network switch, as well as console and USB 2.0 ports for out of band management (OOB).
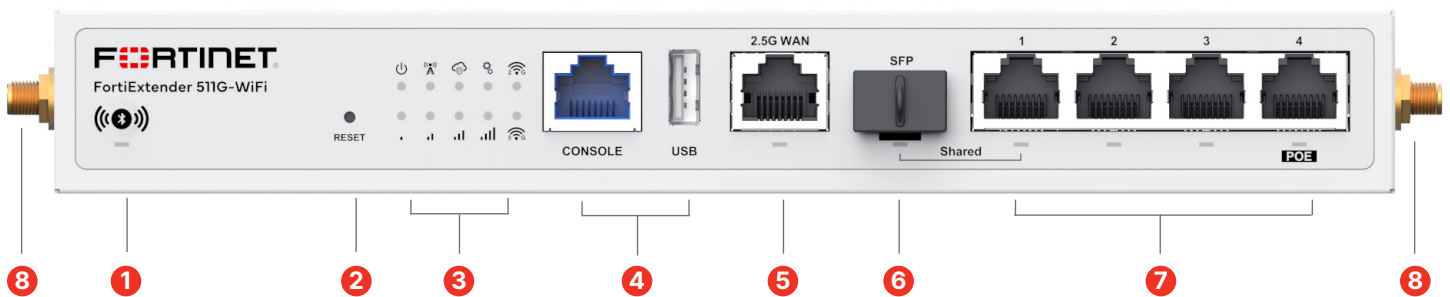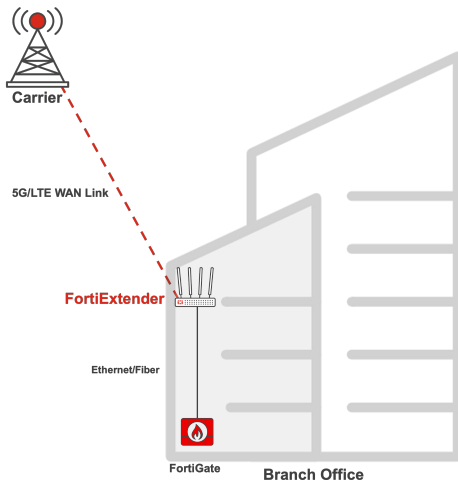

Interfaces

1. BLE
2. RESET
3. LED Status

4. 1x Console Port (RJ45) CLI Management
   1x USB 2.0 Port (USB-A)
5. 1× 2.5 G WAN Port (RJ45)

6. 1x SFP Port
7. 4x RJ45 Ports
8. 2x WiFi Antenna Connectors (RP-SMA)

Features

## Superior Management, Security, and Control

FortiExtender is a plug-and-play device. Once connected to a FortiGate, either directly or remotely over VxLAN, FortiExtender appears as a regular network interface in FortiOS management. IT administrators can manage the connection and implement advanced protection from FortiGuard, just like any other FortiGate interface.

Flexible Deployment for Optimal Signal Strength

FortiExtender devices removed the need for lengthy, expensive, and lossy antenna cables. FortiExtender utilizes Power over Ethernet (PoE) so you can run a high-quality Ethernet cable up to 100 meters away from the FortiGate or network switch where there is optimal 5G/LTE signal. Certain FortiExtender models also support SFP ports, so that you can deploy the device over 100 meters away from the FortiGate or network switch.

5G/LTE Wireless WAN

FortiExtender supports dual-SIM and dual-modem options, enabling up to four different ISPs for ultra-reliable connectivity. Dual-SIM models enable active/passive cellular for failover based on data plan, disconnects, signal strength, and link health, allowing you to balance connectivity quality and cost. Dual-Modem provides active/active cellular links for high-availability, traffic isolation, and load-balancing use cases. Failover configuration options for Dual-SIM FortiExtender include.
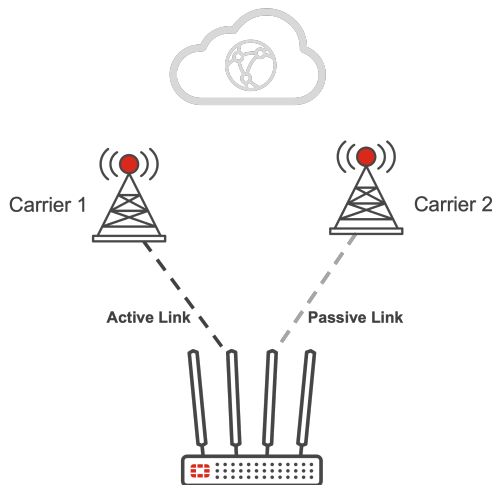
Wired WAN Connectivity

FortiExtender offers WAN connectivity options with an Ethernet WAN port, in addition to 5G/LTE Wireless WAN links. With this wired WAN port, you can connect a DSL, cable, or another modem for additional WAN connectivity. Load-balancing and failover options enable your FortiExtender to manage your WAN connections across several options to ensure optimal connectivity and cost.

LAN Connectivity

FortiExtender offers multiple LAN Ethernet ports to enable multiple connections at the Wireless WAN site. Ideal for High Availability (HA) pairs of FortiGates, each FortiGate can be directly connected to the FortiExtender. Either FortiGate can run in load-balancing or failover modes and receive WAN connectivity from the FortiExtender.
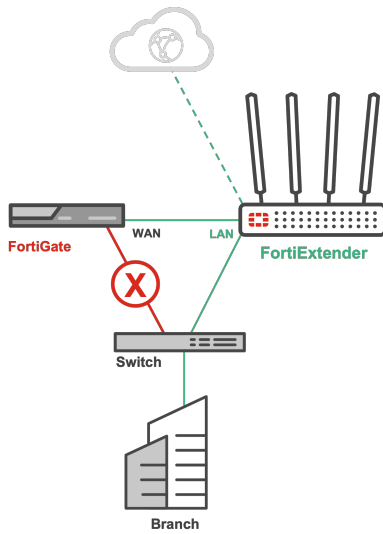
VxLAN Extension

You don't need a FortiGate on site to deploy AI-powered security with your FortiExtender. Enhanced LAN Extension in FortiExtender creates a network fabric using VxLAN technology where you can extend the Layer 2 broadcast domain of a remote FortiGate to the standalone FortiExtender with no extra license needed. Depending on the FortiGate model*, Enhanced LAN Extension supports over 1,000 FortiExtenders per firewall.

*Contact your Sales Engineer for specific details.

Virtual Routing Redundancy Protocol (VRRP)

In branch environments where a high-availability (HA) pair of FortiGates is not possible, FortiExtender supports VRRP to offer HA alongside a single FortiGate. When plugged into a FortiGate, FortiExtender acts as a passive IP passthrough device to the FortiGate. In the event of a FortiGate failure, FortiExtender will take over as the master NAT firewall, offering uninterrupted connectivity for enhanced business continuity. When the FortiGate is restored, FortiExtender returns to its passive role.

Private 5G/LTE (CBRS)

All FortiExtender 5G/LTE models support CBRS in either the form of LTE Band 48 or 5G N48. This allows FortiExtender to play a critical role in Private 5G/LTE deployments as a rapid secure uplink at the edge. When equipped with a Private 5G/LTE SIM card, FortiExtenders can also receive CBRS signal from Private 5G/LTE Access Points to deployed on Automated Guided Vehicles (AGVs), Autonomous Mobile Robots (AMRs), or as virtual LAN mobile zones in parking lots, pop-up tents, and more.

Hardware Specifications

	FEX-101F-EA	FEX-200F	FEX-201F-AM | FEX-201F-EA	FEX-202F-AM | FEX-202F-EA
Hardware and System				
Modem Support	Internal (1x Modem)	N/A	Internal (1x Modem)	Internal (2x Modem)
Number of Antennas	3 SMA External	N/A	3 SMA External	6 SMA External
Power over Ethernet (PoE) Powered	IEEE 802.3af (15.4 W)	N/A	IEEE 802.3af (15.4 W)	IEEE 802.3af (15.4 W)
Ethernet Ports	5 GE RJ45 Ports (WAN + LAN)	5 GbE RJ45 ports (WAN or LAN configurable)	5 GE RJ45 Ports (WAN + LAN)	5 GE RJ45 Ports (WAN + LAN)
USB Ports	1 x USB 2.0 Type A	1 x USB 2.0 Type A	1 x USB 2.0 Type A	1 x USB 2.0 Type A
Bluetooth	N/A	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	Maximum Transmit Power 10 dBm Frequency 2.4 GHz
GPS Antenna Port	Yes	N/A	Yes	Yes
Mounting Options	Wall Mount / Desktop	Wall Mount / Desktop	Wall Mount / Desktop	Wall Mount/Desktop
Type	Indoor	Indoor	Indoor	Indoor
Dimensions				
Height x Width x Length (inches)	1.45 × 5.9 × 5.9 (not including antenna length)	1.02 × 7.09 × 3.9	1.5 × 5.9 × 5.9 (not including antenna length)	1.5 × 6.22 × 6.22 (not including antenna length)
Height x Width x Length (mm)	37 × 150 × 150 (not including antenna length)	27 × 180 × 99.9	38 × 150 × 150 (not including antenna length)	38 × 158 × 158 (not including antenna length)
Weight	0.81 lbs (0.37 kg)	1.01 lbs (0.46 kg)	0.81 lbs (0.37 kg)	0.90 lbs (0.41 kg)
Environment				
Power Required	12V/3A	12V/1A External Adapter	12V/3A	12V/3A External Adapter/PoE(af/at)
Power Consumption (Average)	6.5 W		6.5 W	7.55W | 6.50W
Power Consumption (Maximum)	8.5 W	6.19 W (21.12 BTU/hr) @ -5C 6.81 W (23.24 BTU/hr) @ 50C	8.5 W	9.40W | 8.50W
Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Humidity	5% to 95%	5% to 95%	5% to 95%	5% to 95%
Certifications				
FCC	FCC Part 15B, 2.1091*	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 2.1091*	FCC Part 15B, 15C, 2.1091*
IC	ICES-003, RSS-102*	ICES-003, RSS-247, RSS-102	ICES-003, RSS-102*	ICES-003, RSS-247, RSS-102*
CE	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-19, Draft EN 301 489-52) ** RED 2014/53/EU (EN 303 413, EN 301 908-1/-2/-13, EN 62311) ** LVD 2014/35/EU (EN 62368-1) **	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17) RED 2014/53/EU (EN 300 328, EN 62311) LVD 2014/35/EU (EN 60950-1, EN 62368-1)	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17/-52, Draft EN 301 489-19) ** RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN 62311) ** LVD 2014/35/EU (EN 62368-1) **	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17/-52, Draft EN 301 489-19) ** RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN 62311) ** LVD 2014/35/EU (EN 62368-1) **
UL	UL/CSA 62368-1	UL/CSA 60950-1, UL/CSA 62368-1	UL/CSA 62368-1	UL/CSA 62368-1
CB	IEC/EN 60950-1, IEC/EN 62368-1	IEC/EN 60950-1, IEC/EN 62368-1	IEC/EN 62368-1	IEC/EN 62368-1

* Applies to AM model only.

** Applies to EA model only.

Certification notes:

The built-in modem offers quad-band connectivity to HSPA+ networks worldwide and expected to work in 3G mode worldwide, subject to carrier support.

There are exceptions however, as some carriers control the access to their network to specific carrier certified devices. These carriers allow only certified modem IMEI numbers on their network and have the ability to disable the LTE connection after a period of time.

The following carriers are known to require additional testing to obtain certification. Please reach out to the Fortinet sales team and to evaluate your specific regional requirements: Brazil (VIVO), USA (Sprint), New Zealand, Arabian Peninsula (all carriers), UK (All carriers).

Hardware Specifications

	FEX-212F	FEX 311F	FEX-511F
Hardware and System			
Modem Support	Internal (2x Modem)	Internal (1x Modem)	Internal (1x Modem)
Number of Antennas	6 SMA External	4 SMA External	4 × 5G/LTE/GNSS All-in-One Antennas
Power over Ethernet (PoE) Powered	IEEE 802.3at (25.5 W)	IEEE 802.3at (25.5 W)	IEEE 802.3at (25.5 W)
Ethernet Ports	5 GE RJ45 Ports (WAN + LAN)	5 GE RJ45 Ports (WAN + LAN), 1GE SFP Port	5 GE RJ45 Ports, 1 GE SFP Port
USB Ports	1 x USB 2.0 Type A	1 x USB 2.0 Type A	1 x USB 2.0 Type A
Bluetooth	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	Maximum Transmit Power 10 dBm Frequency 2.4 GHz
GPS Antenna Port	Yes	Yes	Yes
WiFi	—	—	—
Mounting Options	Wall Mount / Desktop	Wall Mount / Desktop	Wall Mount / Desktop
Type	Indoor	Indoor	Indoor
Dimensions			
Height x Width x Length (inches)	1.49 × 6.22 × 6.22 (not including antenna length)	1.83 × 7.48 × 7.83 (not including antenna length)	1.77 × 7.09 × 7.09 (not including antenna length)
Height x Width x Length (mm)	38 × 158 × 158 (not including antenna length)	46.5 × 190 × 199 (not including antenna length)	45 × 180 × 180 (not including antenna length)
Weight	0.90 lbs (0.41 kg)	2.06 lbs (0.933 kg)	1.1 lb (0.5 kg)
Environment			
Power Required	12V/3A	12V/3A	12V/3A
Power Consumption (Average)	7.55 W	14.11W	8 W
Power Consumption (Maximum)	9.40 W	16.05W	10 W
Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Humidity	5% to 95%	5% to 95%	5% to 95%
Certifications			
FCC	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 2.1091
IC	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102
CE	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17/-19, Draft EN 301 489-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN 62311) LVD 2014/35/EU (EN 60950-1, EN 62368-1)	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17, Draft EN 301 489-19/-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN 62311, EN 50665, EN 50385) LVD 2014/35/EU (EN 62368-1)	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3; EN 301 489-1/-17/-19, Draft EN 301 489-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13/-25, EN 62311) LVD 2014/35/EU (EN 60950-1, EN 62368-1)
UL	UL/CSA 62368-1	UL/CSA 62368-1	UL/CSA 62368-1)
CB	IEC/EN 60950-1, IEC/EN 62368-1	IEC/EN 60950-1, IEC/EN 62368-1	(IEC/EN 60950-1, IEC/EN 62368-1)

Certification notes:

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Hardware Specifications

	FEX-511G	FEX-511G-WIFI
Hardware and System		
Modem Support	5G Sub-6GHz module EM9291	5G Sub-6GHz module EM9291
Number of Antennas	4× 5G/LTE/GNSS Antennas	4× 5G/LTE/GNSS Antennas, 2x WiFi Antennas
Power over Ethernet (PoE) Powered	1x Port4	1x Port4
Ethernet Ports	1-WAN2.5G, 1x SFP+RJ45 Combo 1G WAN, 3× 1G LAN	1-WAN2.5G, 1x SFP+RJ45 Combo 1G WAN, 3× 1G LAN
USB Ports	1x USB 2.0	1x USB 2.0
Bluetooth	BLE 5.0+	BLE 5.0+
GPS Antenna Port	Shared with 5G/LTE RF port1	Shared with 5G/LTE RF port1
Mounting Options	Desktop/Wall-Mounted	Desktop/Wall-Mounted
Type	Indoor	Indoor
Dimensions		
Height x Width x Length (inches)	1.27 × 8.98 × 5.83	1.27 × 8.98 × 5.83
Height x Width x Length (mm)	31 × 228 × 148	31 × 228 × 148
Weight	Device (Net weight): 1.0 kg (2.3 lb) Package (Gross weight): 1.8 kg (4.0 lb)	Device (Net weight): 1.1 kg (2.4 lb) Package (Gross weight): 1.9 kg (4.2 lb)
Environment		
Power Required	25.5 W (PoE at)	25.5 W (PoE at)
Power Consumption (Average)	13.8 W	18.8 W
Power Consumption (Maximum)	18.0 W	22.5 W
Operating Temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Humidity	5% to 95%	5% to 95%
Certifications		
FCC	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 15E, 2.1091
IC	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102
CE	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3-3; EN 301 489-1/-17/-19/-52)	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3-3; EN 301 489-1/-17/-19/-52)
	RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13/-25, EN IEC 62311)	RED 2014/53/EU (EN 300 328, EN 301 893, EN 300 440, EN 303 413, EN 301 908-1/-2/-13/-25, EN IEC 62311)
	LVD 2014/35/EU (EN 62368-1)	LVD 2014/35/EU (EN 62368-1)
UL	UL/CSA 62368-1	UL/CSA 62368-1
CB	IEC/EN 62368-1	IEC/EN 62368-1

Certification notes:

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3G/4G-LTE/5G Specifications

	FEX-101F-EA	FEX-201F-AM	FEX-201F-EA	FEX-202F-AM	FEX-202F-EA
Regional Compatibility					
	EMEA, Brazil, some APAC Carriers	North America Carriers	EMEA, APAC Carriers	North America Carriers	EMEA, APAC Carriers
Internal Modem Specifications					
Modem Model	Quectel EM06-E	Sierra Wireless EM7411	Sierra Wireless EM7421	Sierra Wireless EM7411 (2x Modem)	Sierra Wireless EM7421 (2x Modem)
5G NR SA and NSA	—	—	—	—	—
4G: LTE	CAT-6 FDD Bands: 1, 3, 5, 7, 8, 20, 28, 32 TDD Bands: 38, 40, 41	CAT-7 Bands: 2, 4, 5, 7, 12, 13, 14, 25, 26, 41, 42, 43, 48, 66, 71	CAT-7 Bands: 1, 3, 7, 8, 20, 28, 32, 38, 40, 41, 42, 43	CAT-7 Bands: 2, 4, 5, 7, 12, 13, 14, 25, 26, 41, 42, 43, 48, 66, 71	CAT-7 Bands: 1, 3, 7, 8, 20, 28, 32, 38, 40, 41, 42, 43
3G: UMTS/HSPA+	Bands: 1, 3, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8
3G: WCDMA	Bands: 1, 3, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8
Additional Ports	GPS antenna port	GPS antenna port	GPS antenna port	GPS antenna port	GPS antenna port
Connector Type	SMA (MAIN, AUX, GPS)	SMA (MAIN, AUX, GPS)	SMA (MAIN, AUX, GPS)	SMA LTE1 (MAIN, AUX, GPS) LTE2 (MAIN, AUX, GPS)	SMA LTE1 (MAIN, AUX, GPS) LTE2 (MAIN, AUX, GPS)
Module Certifications	GCF, CE, NCC, RCM, ICASA	FCC, IC, GCF, PTCRB	GCF, NCC	FCC, IC, GCF, PTCRB	GCF, NCC
Diversity	✓	✓	✓	✓	✓
MIMO	✓	✓	✓	✓	✓
GNSS Bias	✓	✓	✓	✓	✓

	FEX-212F	FEX-311F	FEX-511F
Regional Compatibility			
	Global Carriers	Global Carriers	Global Carriers
Internal Modem Specifications			
Modem Model	Sierra Wireless EM7565 (2x Modem)	Quectel EM160R-GL	Quectel RM502Q-AE
5G NR SA and NSA	—	—	5G Sub-6 Bands: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79
4G: LTE	CAT-12 Bands: 1, 2, 3, 4, 5, 7, 8, 9, 12, 13, 18, 19, 20, 26, 28, 29, 30, 32, 41, 42, 43, 46, 48, 66	CAT-16 FDD Bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 66 TDD Bands: 38, 39, 40, 41, 42, 43, 46 (LAA), 48 (CBRS)	CAT-20 FDD Bands: 1, 2, 3, 4, 5, 7, 8, 12(17), 13, 14, 18, 19, 20, 25, 26, 28, 29, 30, 32, 66, 71 TDD Bands: 34, 38, 39, 40, 41, 42, 43, 48
3G: UMTS/HSPA+	Bands: 1, 2, 4, 5, 6, 8, 9, 19	Bands: 1, 2, 3, 4, 5, 6, 8, 19	Bands: 1, 2, 3, 4, 5, 6, 8, 19
3G: WCDMA	Bands: 1, 2, 4, 5, 6, 8, 9, 19	Bands: 1, 2, 3, 4, 5, 6, 8, 19	Bands: 1, 2, 3, 4, 5, 6, 8, 19
Additional Ports	GPS antenna port	MIMO1, MIMO2	MIMO1, MIMO2
Connector Type	SMA LTE1 (MAIN, AUX, GPS) LTE2 (MAIN, AUX, GPS)	4x SMA (MAIN, MIMO1, MIMO2, Diversity/GPS)	4x SMA (MAIN, MIMO1, MIMO2, Diversity/GPS)
Module Certifications	FCC, IC, CE, GCF, PTCRB	GCF, CE, PTCRB, FCC, IC, Anatel, IFETEL, SRRC/NAL/CCC, NCC, KC, JATE/TELEC, RCM, ICASA	GCF, CE, PTCRB, FCC, IC, JATE/TELEC, RCM
Diversity	✓	✓	✓
MIMO	✓	✓	✓
GNSS Bias	✓	✓	✓

3G/4G-LTE/5G Specifications

	FEX-511G	FEX-511G-WIFI
Regional Compatibility		
	Global Carriers	Global Carriers
Internal Modem Specifications		
Modem Model	EM9291	EM9291
5G NR SA and NSA	n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79	n1, n2, n3, n5, n7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n38, n40, n41, n48, n66, n70, n71, n75, n76, n77, n78, n79
4G: LTE	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71	B1, B2, B3, B4, B5, B7, B8, B12, B13, B14, B17, B18, B19, B20, B25, B26, B28, B29, B30, B32, B34, B38, B39, B40, B41, B42, B43, B46, B48, B66, B71
3G: UMTS/HSPA+	B1, B2, B4, B5, B8, B19	B1, B2, B4, B5, B8, B19
3G: WCDMA	B1, B2, B4, B5, B8, B19	B1, B2, B4, B5, B8, B19
Additional Ports	—	—
Connector Type	M.2	M.2
Diversity	⊘	⊘
MIMO	⊘	⊘
GNSS Bias	—	—

Features

	FEX-101F (EA)	FEX-201F (AM/EA)	FEX-202F (AM/EA)	FEX-212F	FEX-311F	FEX-511F
Advanced Radio Technology						
2×2 MIMO — enables industry leading data speeds	✓	✓	✓	✓	✓	✓
4×4 MIMO — enables industry leading data speeds	—	—	—	—	✓	✓
5G Downlink 4×4 MIMO bands: 1, 2, 3, 7, 25, 38, 40, 41, 48, 66, 77, 78, 79	—	—	—	—	—	✓
5G Uplink 2 × 2 MIMO Band: 41	—	—	—	—	—	✓
LTE Downlink 4 × 4 MIMO bands: 1, 2, 3, 4, 7, 25, 30, 32, 34, 38, 39, 40, 41, 42, 43, 48, 66	—	—	—	—	—	✓
LTE Downlink 4 × 4 MIMO bands: 1, 2, 3, 4, 7, 25, 30, 32, 38, 39, 40, 41, 66	—	—	—	—	✓	—
Receiver Equalization — improves performance in noisy and highly mobile environments	✓	✓	✓	✓	✓	✓
Receiver Diversity — improves performance at cell edges and in buildings	✓	✓	✓	✓	✓	✓
Dual Modem	—	—	✓	✓	—	—
2×2 2.4/5GHz 802.11 a/b/g/n/ac Wave2 WiFi Support	—	—	—	—	—	—
2×2 2.4G/5GHz concurrent WiFi6 (802.11ax)	—	—	—	—	—	—
Advanced Software Features						
Connection Status	✓	✓	✓	✓	✓	✓
Auto-connect	✓	✓	✓	✓	✓	✓
Auto-select Network	✓	✓	✓	✓	✓	✓
Data Byte Count	✓	✓	✓	✓	✓	✓
Network Profile	✓	✓	✓	✓	✓	✓
Self-diagnostics	✓	✓	✓	✓	✓	✓
Power Management — standby and hibernate selective suspend	✓	✓	✓	✓	✓	✓
DIAG and AT Commands	✓	✓	✓	✓	✓	✓
Private IP SIM Support	✓	✓	✓	✓	✓	✓
L2 Tunnel Mode via VLAN or CAPWAP for fast and flexible deployments	✓	✓	✓	✓	✓	✓
Single Pane of Glass Management via FortiGate and FortiManager	✓	✓	✓	✓	✓	✓
SIM Features						
Dual-SIM Support with intelligent fail-over algorithms	✓	✓	✓	✓	✓	✓
SIM Size: Micro-SIM type 3FF	✓	✓	✓	✓	✓	✓
SIM Security Cover	✓	✓	✓	✓	✓	✓
IMEI printed at bottom of enclosure for ease of activation	✓	✓	✓	✓	✓	✓
Carrier Certifications						
Verizon	✓*	✓*	✓*	✓	Not Available	✓
ATT	✓*	✓*	✓*	✓	✓	✓
PTCRB	✓*	✓*	✓*	✓	✓	✓
T-Mobile	—	✓*	✓*	—	—	✓
Public Safety Network	—	—	—	FirstNet Capable (LTE Only)	—	FirstNet Capable (LTE Only)

* Applies to AM model only.

The built-in modem offers quad-band connectivity to HSPA+ networks worldwide and is expected to work in 3G mode worldwide, subject to carrier support. There are exceptions however, as some carriers control the access to their network to specific carrier certified devices. These carriers allow only certified modem IMEI numbers on their network and have the ability to disable the LTE connection after a period of time.

(!) Certifications are in progress. The following carriers are known to require additional testing to obtain certification. Please reach out to the Fortinet sales team and to evaluate your specific regional requirements: Brazil (VIVO), USA (Sprint), New Zealand, Arabian Peninsula (all carriers), and UK (all carriers).

Features

	FEX-511G	FEX-511G-WIFI
Advanced Radio Technology		
2×2 MIMO — enables industry leading data speeds	Yes	Yes
4×4 MIMO — enables industry leading data speeds	Yes	Yes
5G Downlink 4×4 MIMO bands: 1, 2, 3, 7, 25, 38, 40, 41, 48, 66, 77, 78, 79	n1, n2, n3, n7, n25, n30, n38, n39, n40, n41, n48, n66, n70, n75, n76, n77, n78, n79	n1, n2, n3, n7, n25, n30, n38, n39, n40, n41, n48, n66, n70, n75, n76, n77, n78, n79
5G Uplink 2 × 2 MIMO Band: 41	n38, n41, n48, n77, n78, n79	n38, n41, n48, n77, n78, n79
LTE Downlink 4 × 4 MIMO bands: 1, 2, 3, 4, 7, 25, 30, 32, 34, 38, 39, 40, 41, 42, 43, 48, 66	B1, B2, B3, B4, B7, B25, B30, B32, B38, B39, B40, B41, B42, B43, B48, B66, B70	B1, B2, B3, B4, B7, B25, B30, B32, B38, B39, B40, B41, B42, B43, B48, B66, B70
Receiver Equalization — improves performance in noisy and highly mobile environments	TBD	TBD
Receiver Diversity — improves performance at cell edges and in buildings	Yes	Yes
Dual Modem	No	No
2×2 2.4/5GHz 802.11 a/b/g/n/ac Wave2 WiFi Support	NA	Yes, Covered by WiFi6
2×2 2.4G/5GHz concurrent WiFi6 (802.11ax)	NA	Yes
Advanced Software Features		
Connection Status	⊘	⊘
Auto-connect	⊘	⊘
Auto-select Network	⊘	⊘
Data Byte Count	⊘	⊘
Network Profile	⊘	⊘
Self-diagnostics	⊘	⊘
Power Management — standby and hibernate selective suspend	⊘	⊘
DIAG and AT Commands	⊘	⊘
Private IP SIM Support	⊘	⊘
L2 Tunnel Mode via VLAN or CAPWAP for fast and flexible deployments	⊘	⊘
Single Pane of Glass Management via FortiGate and FortiManager	⊘	⊘
SIM Features		
Dual-SIM Support with intelligent fail-over algorithms	⊘	⊘
SIM Size: Micro-SIM type 3FF	⊘	⊘
SIM Security Cover	⊘	⊘
IMEI printed at bottom of enclosure for ease of activation	⊘	⊘
eSIM	Coming in Q2-2025	Coming in Q2-2025
Bandwidth Information		
IPsec VPN Throughput (Wired)	920 Mbps	920 Mbps
IPsec VPN Throughput (5G/LTE)	400 Mbps	400 Mbps
Lan-Extension Throughput	600 Mbs	600 Mbs
Max WAN Uplinks Supported	1	1
LAN-LAN Layer-2 Frames Throughput	950 Mbps	950 Mbps
LAN-WAN NAT 'ed Layer-3 IP Packets Throughput	900 Mbps	900 Mbps
Carrier Certifications		
Verizon	In-progress	In-progress
ATT	In-progress	In-progress
PTCRB	⊘	⊘
T-Mobile	In-progress	In-progress
Public Safety Network	FirstNet In-progress	FirstNet In-progress

* Applies to AM model only.

The built-in modem offers quad-band connectivity to HSPA+ networks worldwide and is expected to work in 3G mode worldwide, subject to carrier support. There are exceptions however, as some carriers control the access to their network to specific carrier certified devices. These carriers allow only certified modem IMEI numbers on their network and have the ability to disable the LTE connection after a period of time.

⊙ Certifications are in progress. The following carriers are known to require additional testing to obtain certification. Please reach out to the Fortinet sales team and to evaluate your specific regional requirements: Brazil (VIVO), USA (Sprint), New Zealand, Arabian Peninsula (all carriers), and UK (all carriers).
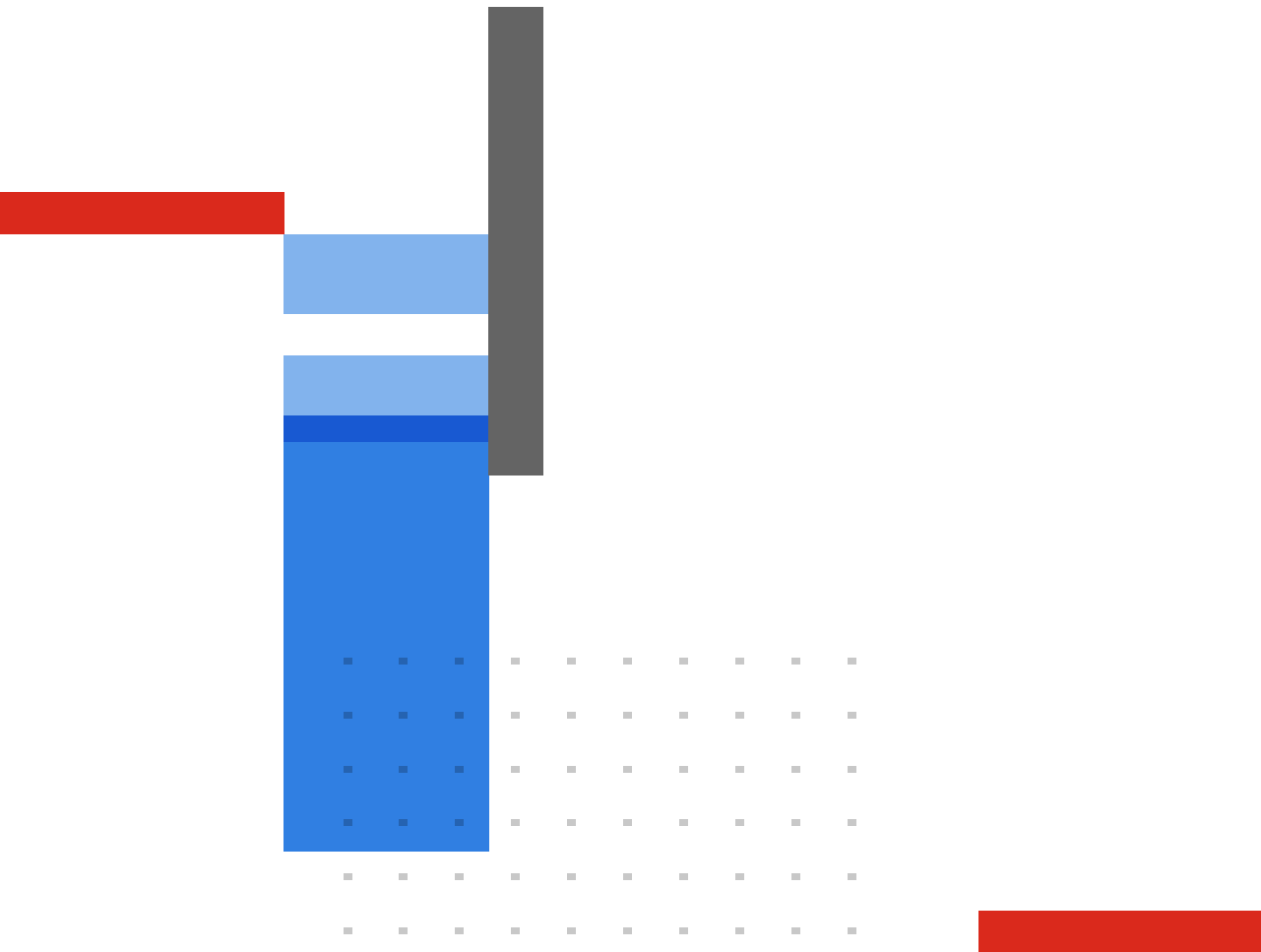
Ordering Information

PRODUCT	SKU	DESCRIPTION
3G/4G-LTE/5G Models		
FortiExtender 101F	FEX-101F-EA	Indoor Broadband Wireless WAN Router with 1x Dual SIM 3G/4G LTE CAT6 M.2 Module (DL/UL=300M/50Mbps) for EMEA, some APAC, Brazil Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3af/at POE PD port and GPS/GNSS service.
FortiExtender 201F	FEX-201F-AM	Indoor Broadband Wireless WAN Router with 1x Dual SIM 3G/4G LTE CAT7 M.2 Module (DL/UL=300M/150Mbps) for North America Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3af/at POE PD port and GPS/GNSS service.
	FEX-201F-EA	Indoor Broadband Wireless WAN Router with 1x Dual SIM 3G/4G LTE CAT7 M.2 Module (DL/UL=300M/150Mbps) for EMEA/APAC Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3af/at POE PD port and GPS/GNSS service.
FortiExtender 202F	FEX-202F-AM	Indoor Broadband Wireless WAN Router with 2x Dual SIM 3G/4G LTE CAT7 M.2 Module (DL/UL=300M/150Mbps) for North America Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3af/at POE PD port and GPS/GNSS service.
	FEX-202F-EA	Indoor Broadband Wireless WAN Router with 2x Dual SIM 3G/4G LTE CAT7 M.2 Module (DL/UL=300M/150Mbps) for EMEA/APAC Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3af/at POE PD port and GPS/GNSS service.
FortiExtender 212F	FEX-212F	Indoor Broadband Wireless WAN Extender with 2x Dual SIM 3G/4G/LTE CAT12 global modem, 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3at POE PD port and GPS port.
FortiExtender 311F	FEX-311F	Indoor Broadband Wireless WAN Router with 1x Dual SIM 3G/4G LTE CAT16 M.2 Module (DL/UL=1Gbps/150Mbps) for Global Carriers. 2x GE WAN (1x SFP + 1x RJ45) and 4x GE LAN RJ45 ports including 1× 802.3at POE PD port (25.5W) and GPS/GNSS service.
FortiExtender 511F	FEX-511F	Indoor Broadband Wireless WAN Router with 1x Dual SIM 5G Sub-6GHz radio for Global Carriers, with Cat20 LTE support. 5x GE WAN/LAN configurable RJ45 ports including 1× 802.3at POE PD port (25.5W) and 1x SFP port.
FortiExtender 511G	FEX-511G	Indoor Broadband Wireless WAN Router with 1x Dual SIM 5G Sub 6 Ghz (DL/UL= 4.9 Gbps/660 Mbps) for Global Carriers, Roll back LTE CAT-20 (DL/UL: 2.0 Gbps/211 Mbps) when no 5G base station exists. 1× 2.5 GbE + 1x GbE Shared (SFP + RJ45) + 3x GbE RJ45 WAN/LAN configurable network ports, 1x USB2.0 Type A port, and 1x RJ45 console port.
	FEX-511G-WiFi	Indoor Broadband Wireless WAN Router with 1x Dual SIM 5G Sub 6 Ghz (DL/UL= 4.9 Gbps/660 Mbps) for Global Carriers, Roll back LTE CAT-20 (DL/UL: 2.0 Gbps/211 Mbps) when no 5G base station exists. 1× 2.5 GbE + 1x GbE Shared (SFP + RJ45) + 3x GbE RJ45 WAN/LAN configurable network ports, 2× 2 2.4 G/5G concurrent Wi-Fi 6 (802.11ax) with WiFi speed up to 1.8 Gbps, 1x USB2.0 Type A port, and 1x RJ45 console port.
Ethernet Models		
FortiExtender 200F	FEX-200F	FEX-200F is an extension of the FortiGate LAN interface, connecting to FortiGate with a secured L2 tunnel for Layer2~Layer7 security for branch offices. 5x GbE RJ45 ports, each can be configured as WAN or LAN by software.
FortiCare		
FortiCare Support	FC-10-X101A-247-02-DD	24×7 FortiCare Contract for FEX-101F-EA.
	FC-10-FA21F-247-02-DD	24×7 FortiCare for FEX-201F-AM.
	FC-10-FE21F-247-02-DD	24×7 FortiCare for FEX-201F-EA.
	FC-10-FA22F-247-02-DD	24×7 FortiCare for FEX-202F-AM.
	FC-10-FE22F-247-02-DD	24×7 FortiCare for FEX-202F-EA.
	FC-10-FG21F-247-02-DD	FortiCare Premium Support.
	FC-10-FG21F-210-02-DD	Next Calendar Day Delivery Priority RMA Service (Requires FortiCare Premium or FortiCare Elite).
	FC-10-X212F-247-02-DD	24×7 FortiCare Contract for FEX-212F.
	FC-10-X311F-247-02-DD	24×7 FortiCare Contract for FEX-311F.
	FC-10-X511F-247-02-DD	24×7 FortiCare Contract for FEX-511F.
	FC-10-F200F-247-02-DD	24×7 FortiCare Contract for FEX-200F.
Accessories		
Power Adapter	SP-FEX12V3A-PA-1-US	AC Power adapter with US plug for North America and Japan, for use with FortiExtender FEX-101F, FEX-201F, FEX-202F, FEX-212F, FEX-311F and FEX-511F models.
Power Adapter	SP-FEX12V3A-PA-1-EU	AC Power adapter with EU plug for Europe, for use with FortiExtender FEX-101F, FEX-201F, FEX-202F, FEX-211E, FEX-212F, FEX-311F and FEX-511F models.
Power Adapter	SP-FAP400-PA-AU	AC Power Adapter for FEX-101F, FEX-201F, FEX-202F, FEX-211E, FEX-212F, FEX-311F, FEX-511F. Also applicable to certain FortiAP models.
PoE Injector	GPI-115	IEEE 802.3af-compliant single-port, mid-span, with 15.4 Watt Gigabit Ethernet (GE) PoE.
PoE Injector	GPI-130	IEEE 802.3af-compliant single-port, mid-span, with 30 Watt Gigabit Ethernet (GE) PoE.

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

Fortinet Corporate Social Responsibility Policy

Fortinet is committed to driving progress and sustainability for all through cybersecurity, with respect for human rights and ethical business practices, making possible a digital world you can always trust. You represent and warrant to Fortinet that you will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving illegal censorship, surveillance, detention, or excessive use of force. Users of Fortinet products are required to comply with the Fortinet EULA and report any suspected violations of the EULA via the procedures outlined in the Fortinet Whistleblower Policy.

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December 18, 2024

FEXT-DAT-R47-20241218