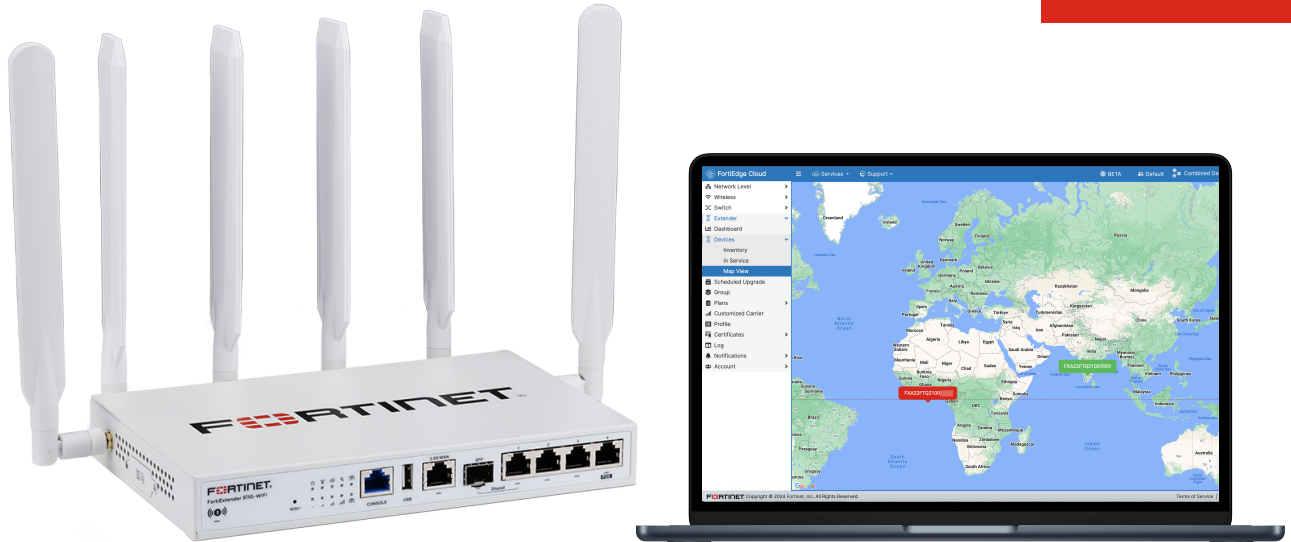


# FortiExtender 5G/LTE Gateways

Available in



Appliance



## 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

## Extend, Ensure, and Secure Your Network

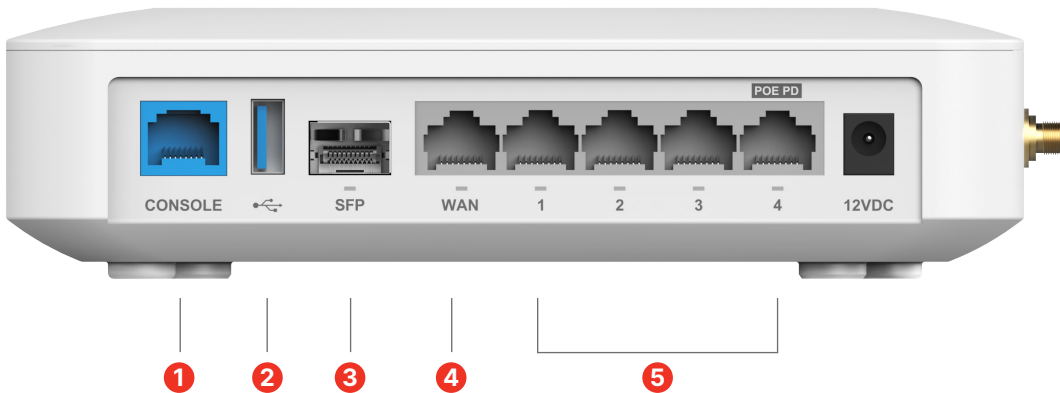
FortiExtender indoor 5G/LTE gateways offer scalable, secure, and resilient connectivity for enterprise networks. Driven by Fortinet's unique approach of Secure Networking, FortiExtender allows organizations business continuity, improved network availability while securing connectivity with wired broadband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

## 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)



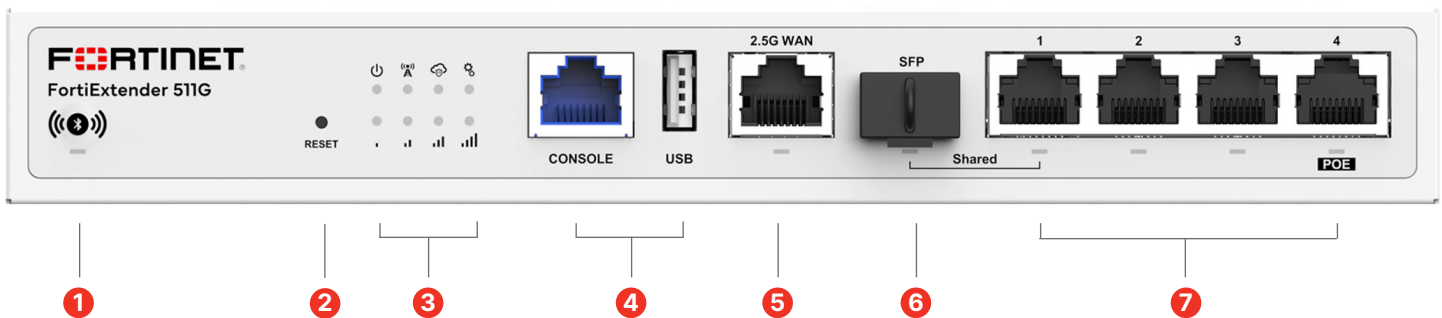
### FortiExtender 511F

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).

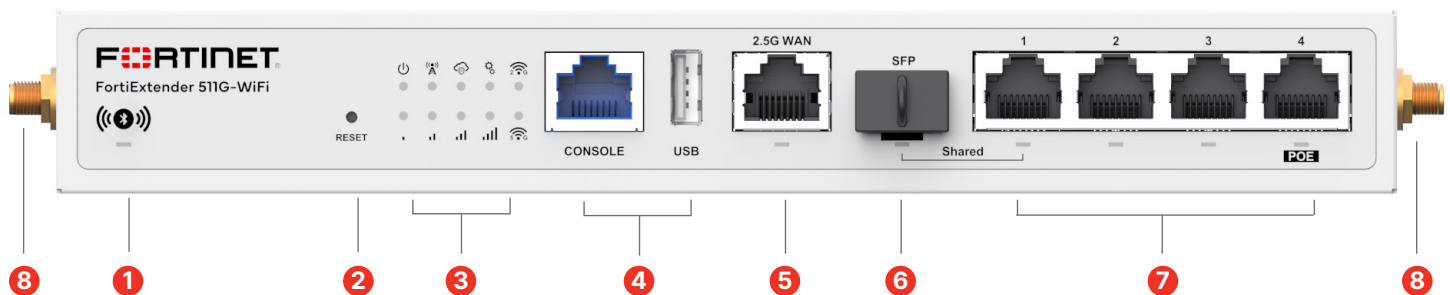


#### Interfaces

- |               |   |                  |
|---------------|---|------------------|
| 1. BLE        | 4. 1x Console Port (RJ45) CLI Management<br>1x USB 2.0 Port (USB-A) | 6. 1x SFP Port   |
| 2. RESET      | 5. 1x 2.5 G WAN Port (RJ45)   | 7. 4x RJ45 Ports |
| 3. LED Status |   |                  |

### FortiExtender 511G-WiFi

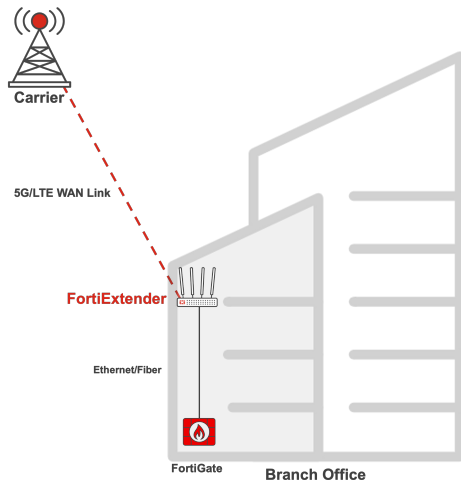
The FortiExtender 511G-WiFi Interface offers an SFP port for fiber cabling deployments greater than 100 meters away from the FortiGate or network switch, as well as console and USB 2.0 ports for out of band management (OOB).



#### Interfaces

- |               |   |   |
|---------------|---|---|
| 1. BLE        | 4. 1x Console Port (RJ45) CLI Management<br>1x USB 2.0 Port (USB-A) | 6. 1x SFP Port                          |
| 2. RESET      | 5. 1x 2.5 G WAN Port (RJ45)   | 7. 4x RJ45 Ports                        |
| 3. LED Status |   | 8. 2x Wi-Fi Antenna Connectors (RP-SMA) |

## Features



### Superior Management, Security, and Control

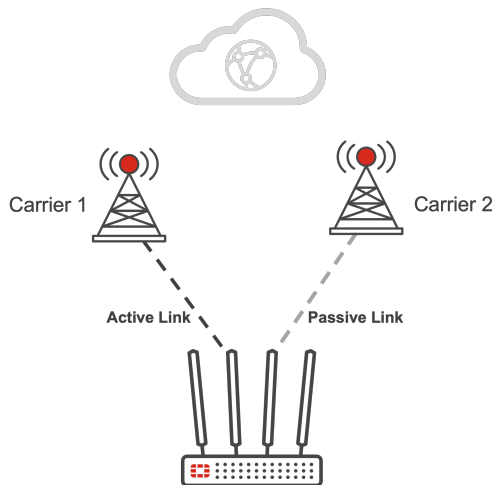
FortiExtender is a plug-and-play device. Once connected to a FortiGate, either directly or remotely over VxLAN, FortiExtender appears as a regular network interface in FortiOS management. IT administrators can manage the connection and implement advanced protection from FortiGuard, just like any other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

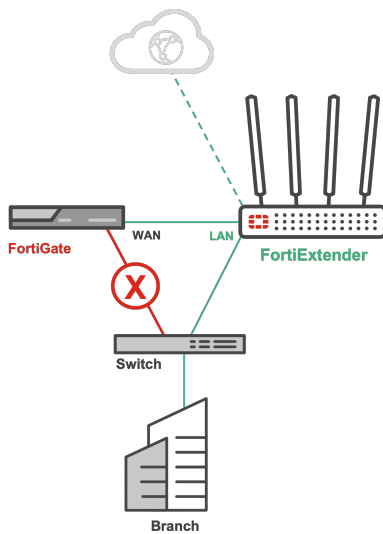


### Wired WAN Connectivity

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-101G	FEX-200F	FEX-201F-EA	FEX-202F-AM   FEX-202F-EA
<b>Hardware and System</b>				
<b>Modem Support</b>	Internal (1x Modem) LTE CAT-6	N/A	Internal (1x Modem)	Internal (2x Modem)
<b>Number of Antennas</b>	3 SMA External (2x LTE + 1x GNSS)	N/A	3 SMA External	6 SMA External
<b>Power over Ethernet (PoE) Powered</b>	1x Port4, IEEE 802.3at (25.5W)	N/A	IEEE 802.3af (15.4 W)	IEEE 802.3af (15.4 W)
<b>Ethernet Ports</b>	1x 1GigE WAN, 4x 1GigE LAN	5 GbE RJ45 ports (WAN or LAN configurable)	5 GE RJ45 Ports (WAN + LAN)	5 GE RJ45 Ports (WAN + LAN)
<b>USB Ports</b>	1x 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
<b>Bluetooth</b>	BLE 5.0+	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
<b>GPS Antenna Port</b>	☑	N/A	☑	☑
<b>Mounting Options</b>	Wall-Mount / Desktop	Wall Mount / Desktop	Wall Mount / Desktop	Wall Mount/Desktop
<b>Type</b>	Indoor	Indoor	Indoor	Indoor
<b>Dimensions</b>				
<b>Height x Width x Length (inches)</b>	1.5 × 6.22 × 6.22 (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)
<b>Height x Width x Length (mm)</b>	38 × 158 × 158 (not including antenna length)	27 × 180 × 99.9	38 × 150 × 150 (not including antenna length)	38 × 158 × 158 (not including antenna length)
<b>Weight</b>	0.90 lbs (0.41 Kg)	1.01 lbs (0.46 kg)	0.81 lbs (0.37 kg)	0.90 lbs (0.41 kg)
<b>Environment</b>				
<b>Power Required</b>	PoE 802.3af/at or 12V/3A External Adapter	12V/1A External Adapter	12V/3A	12V/3A External Adapter/PoE(af/at)
<b>Power Consumption (Average)</b>	9.10W		6.5 W	7.55W   6.50W
<b>Power Consumption (Maximum)</b>	10.45W	6.19 W (21.12 BTU/hr) @ -5C 6.81 W (23.24 BTU/hr) @ 50C	8.5 W	9.40W   8.50W
<b>Operating Temperature</b>	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)
<b>Storage Temperature</b>	-40°F to 158°F (-40°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)
<b>Humidity</b>	5% to 95%	5% to 95%	5% to 95%	5% to 95%
<b>Certifications</b>				
<b>FCC</b>	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 2.1091*	FCC Part 15B, 15C, 2.1091*
<b>IC</b>	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102	ICES-003, RSS-102*	ICES-003, RSS-247, RSS-102*
<b>CE</b>	EMC 2014/30/EU (EN 55032, EN 55035, EN IEC 61000-3-2, EN 61000-3-3, EN 301 489-1/-17/-19/-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN IEC 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) 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) **
<b>UL</b>	UL/CSA 62368-1	UL/CSA 60950-1, UL/CSA 62368-1	UL/CSA 62368-1	UL/CSA 62368-1
<b>CB</b>	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-211G	FEX 311F
<b>Hardware and System</b>		
<b>Modem Support</b>	Internal (1x Modem) LTE CAT-12	Internal (1x Modem)
<b>Number of Antennas</b>	3 SMA External (2x LTE + 1x GNSS)	4 SMA External
<b>Power over Ethernet (PoE) Powered</b>	1x Port4, IEEE 802.3at (25.5W)	IEEE 802.3at (25.5 W)
<b>Ethernet Ports</b>	1x 1GigE WAN, 4x 1GigE LAN	5 GE RJ45 Ports (WAN + LAN), 1GE SFP Port
<b>USB Ports</b>	1x USB 2.0 Type-A	1 x USB 2.0 Type A
<b>Bluetooth</b>	BLE 5.0+	Maximum Transmit Power 10 dBm Frequency 2.4 GHz
<b>GPS Antenna Port</b>	☑	☑
<b>Mounting Options</b>	Wall-Mount / Desktop	Wall Mount / Desktop
<b>Type</b>	Indoor	Indoor
<b>Dimensions</b>		
<b>Height x Width x Length (inches)</b>	1.5 × 6.22 × 6.22 (not including antenna length)	1.83 × 7.48 × 7.83 (not including antenna length)
<b>Height x Width x Length (mm)</b>	38 × 158 × 158 (not including antenna length)	46.5 × 190 × 199 (not including antenna length)
<b>Weight</b>	0.90 lbs (0.41 Kg)	2.06 lbs (0.933 kg)
<b>Environment</b>		
<b>Power Required</b>	PoE 802.3af/at or 12V/3A External Adapter	12V/3A
<b>Power Consumption (Average)</b>	9.18W	14.11W
<b>Power Consumption (Maximum)</b>	10.64W	16.05W
<b>Operating Temperature</b>	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
<b>Storage Temperature</b>	-40°F to 158°F (-40°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
<b>Humidity</b>	5% to 95%	5% to 95%
<b>Certifications</b>		
<b>FCC</b>	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 2.1091
<b>IC</b>	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102
<b>CE</b>	EMC 2014/30/EU (EN 55032, EN 55035, EN IEC 61000-3-2, EN 61000-3-3, EN 301 489-1/-17/-19/-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN IEC 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, 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)
<b>UL</b>	UL/CSA 62368-1	UL/CSA 62368-1
<b>CB</b>	IEC/EN 62368-1	IEC/EN 60950-1, IEC/EN 62368-1

### 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.

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## Hardware Specifications

	FEX-511F	FEX-511G	FEX-511G-WIFI
<b>Hardware and System</b>			
<b>Modem Support</b>	Internal (1x Modem)	5G Sub-6GHz module EM9291	5G Sub-6GHz module EM9291
<b>Number of Antennas</b>	4 × 5G/LTE/GNSS All-in-One Antennas	4 × 5G/LTE/GNSS Antennas	4 × 5G/LTE/GNSS Antennas, 2x Wi-Fi Antennas
<b>Power over Ethernet (PoE) Powered</b>	IEEE 802.3at (25.5 W)	1x Port4	1x Port4
<b>Ethernet Ports</b>	5 GE RJ45 Ports, 1 GE SFP Port	1-WAN2.5G, 1x SFP+RJ45 Combo 1G WAN, 3 × 1G LAN	1-WAN2.5G, 1x SFP+RJ45 Combo 1G WAN, 3 × 1G LAN
<b>USB Ports</b>	1 x USB 2.0 Type A	1x USB 2.0	1x USB 2.0
<b>Bluetooth</b>	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	BLE 5.0+	BLE 5.0+
<b>GPS Antenna Port</b>	Ⓢ	Shared with 5G/LTE RF port1	Shared with 5G/LTE RF port1
<b>Mounting Options</b>	Wall Mount / Desktop	Desktop/Wall-Mounted	Desktop/Wall-Mounted
<b>Type</b>	Indoor	Indoor	Indoor
<b>Dimensions</b>			
<b>Height x Width x Length (inches)</b>	1.77 × 7.09 × 7.09 (not including antenna length)	1.27 × 8.98 × 5.83	1.27 × 8.98 × 5.83
<b>Height x Width x Length (mm)</b>	45 × 180 × 180 (not including antenna length)	31 × 228 × 148	31 × 228 × 148
<b>Weight</b>	1.1 lb (0.5 kg)	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)
<b>Environment</b>			
<b>Power Required</b>	12V/3A	25.5 W (PoE at)	25.5 W (PoE at)
<b>Power Consumption (Average)</b>	8 W	13.8 W	18.8 W
<b>Power Consumption (Maximum)</b>	10 W	18.0 W	22.5 W
<b>Operating Temperature</b>	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)
<b>Storage Temperature</b>	-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)
<b>Humidity</b>	5% to 95%	5% to 95%	5% to 95%
<b>Certifications</b>			
<b>FCC</b>	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 2.1091	FCC Part 15B, 15C, 15E, 2.1091
<b>IC</b>	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102	ICES-003, RSS-247, RSS-102
<b>CE</b>	EMC 2014/30/EU (EN 55032, EN 55024, EN 55035, EN 61000-3-2/-3-3; 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)	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3-3-3; 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)  LVD 2014/35/EU (EN 62368-1)	EMC 2014/30/EU (EN 55032, EN 55035, EN 61000-3-2/-3-3-3; EN 301 489-1/-17/-19/-52)  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)
<b>UL</b>	UL/CSA 62368-1)	UL/CSA 62368-1	UL/CSA 62368-1
<b>CB</b>	(IEC/EN 60950-1, IEC/EN 62368-1)	IEC/EN 62368-1	IEC/EN 62368-1

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.

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## 3G/4G-LTE/5G Specifications

	FEX-101G	FEX-201F-EA	FEX-202F-AM	FEX-202F-EA
<b>Regional Compatibility</b>				
<b>Applied Region</b>	Global Carriers	EMEA, APAC Carriers	North America Carriers	EMEA, APAC Carriers
<b>Internal Modem Specifications</b>				
<b>Modem Model</b>	Telit LN920A6-WW (CAT-6)	Sierra Wireless EM7421	Sierra Wireless EM7411 (2x Modem)	Sierra Wireless EM7421 (2x Modem)
<b>5G NR SA and NSA **</b>	—	—	—	—
<b>4G: LTE **</b>	Bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 43, 48 (CBRS), 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
<b>3G: UMTS/HSPA+ **</b>	Bands: 1, 2, 4, 5, 8	Bands: 1, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8
<b>3G: WCDMA **</b>	Bands: 1, 2, 4, 5, 6, 8, 9, 19	Bands: 1, 5, 8	Bands: 2, 4, 5	Bands: 1, 5, 8
<b>Additional Ports</b>	GPS antenna port	GPS antenna port	GPS antenna port	GPS antenna port
<b>Connector Type</b>	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)
<b>Module Certifications</b>	RCM, ANATEL, ISED, CCC, JATE/TELEC, NCC, UKCA, FCC, PTCRB, GCF, TELSTRA, KDDI, DOCOMO, AT&T, TMO, VZW	GCF, NCC	FCC, IC, GCF, PTCRB	GCF, NCC
<b>Diversity</b>	✓	✓	✓	✓
<b>MIMO</b>	✓	✓	✓	✓
<b>GNSS Bias</b>	✓	✓	✓	✓

	FEX-211G	FEX-311F	FEX-511F	FEX-511G	FEX-511G-WIFI
<b>Regional Compatibility</b>					
<b>Applied Region</b>	Global Carriers	Global Carriers	Global Carriers	Global Carriers	Global Carriers
<b>Internal Modem Specifications</b>					
<b>Modem Model</b>	Telit LN920A12-WW (CAT-12)	Quectel EM160R-GL	Quectel RM502Q-AE	EM9291	EM9291
<b>5G NR SA and NSA **</b>	—	—	5G Sub-6 Bands: n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, 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	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
<b>4G: LTE **</b>	Bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 38, 39, 40, 41, 42, 43, 48 (CBRS), 66, 71	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	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
<b>3G: UMTS/HSPA+ **</b>	Bands: 1, 2, 4, 5, 8	Bands: 1, 2, 3, 4, 5, 6, 8, 19	Bands: 1, 2, 3, 4, 5, 6, 8, 19	B1, B2, B4, B5, B8, B19	B1, B2, B4, B5, B8, B19
<b>3G: WCDMA **</b>	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	B1, B2, B4, B5, B8, B19	B1, B2, B4, B5, B8, B19
<b>Additional Ports</b>	GPS antenna port	MIMO1, MIMO2	MIMO1, MIMO2	—	—
<b>Connector Type</b>	SMA (MAIN, AUX, GPS)	4x SMA (MAIN, MIMO1, MIMO2, Diversity/GPS)	4x SMA (MAIN, MIMO1, MIMO2, Diversity/GPS)	4x SMA (MAIN, MIMO1/GPS, MIMO2, MIMO3)	2x Wi-Fi (RP-SMA), 4x SMA (MAIN, MIMO1/GPS, MIMO2, MIMO3)
<b>Module Certifications</b>	RCM, ANATEL, ISED, CCC/NAL/STRC, RED, JATE/TELEC, KCC, NCC, UKCA, FCC, PTCRB, GCF, TELSTRA, KDDI, DOCOMO, SPK NZ, AT&T, VZW, TMO.	GCF, CE, PTCRB, FCC, IC, Anatel, IFETEL, STRC/NAL/CCC, NCC, KC, JATE/TELEC, RCM, ICASA	GCF, CE, PTCRB, FCC, IC, JATE/TELEC, RCM	—	—
<b>Diversity</b>	✓	✓	✓	✓	✓
<b>MIMO</b>	✓	✓	✓	✓	✓
<b>GNSS Bias</b>	✓	✓	✓	NA	NA

\*\* Supported frequency bands are contingent upon the modem vendor's firmware integrity, the Fortinet software version deployed, and carrier-specific configurations. Fortinet makes no guarantees regarding continued compatibility of bands across all carriers, FortiExtender hardware or software versions.



## Features

	FEX-101G	FEX-201F-EA	FEX-202F (AM/EA)	FEX-211G	FEX-311F	FEX-511F	FEX-511G	FEX-511G-WIFI
<b>Advanced Radio Technology</b>								
2x2 MIMO — enables industry leading data speeds	✓	✓	✓	✓	✓	✓	✓	✓
4x4 MIMO — enables industry leading data speeds	—	—	—	—	✓	✓	✓	✓
5G Downlink 4x4 MIMO bands: ** n1, n2, n3, n7, n25, n38, n40, n41, n48, n66, n77, n78, n79	—	—	—	—	—	✓	✓	✓
5G Uplink 2 x 2 MIMO Band: ** n41	—	—	—	—	—	✓	✓	✓
LTE Downlink 4 x 4 MIMO bands: ** B1, B2, B3, B4, B7, B25, B30, B32, B34, B38, B39, B40, B41, B42, B43, B48, B66	—	—	—	—	—	✓	—	—
LTE Downlink 4 x 4 MIMO bands: ** B1, B2, B3, B4, B7, B25, B30, B32, B38, B39, B40, B41, B66	—	—	—	—	✓	—	—	—
LTE Downlink 4 x 4 MIMO bands: ** 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	✓	✓	✓	✓	✓	✓	—	—
Receiver Diversity — improves performance at cell edges and in buildings	✓	✓	✓	✓	✓	✓	✓	✓
Dual Modem	—	—	✓	—	—	—	—	—
2x2 2.4/5GHz 802.11 a/b/g/n/ac Wave2 Wi-Fi Support	—	—	—	—	—	—	—	—
2x2 2.4G/5GHz concurrent Wi-Fi 6 (802.11ax)	—	—	—	—	—	—	—	✓
<b>Advanced Software Features</b>								
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	✓	✓	✓	✓	✓	✓	✓	✓
<b>SIM Features</b>								
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	In Progress	—	—	In Progress	—	—	In Progress	In Progress

\* Applies to AM model only.

\*\* Supported frequency bands are contingent upon the modem vendor's firmware integrity, the Fortinet software version deployed, and carrier-specific configurations. Fortinet makes no guarantees regarding continued compatibility of bands across all carriers, FortiExtender hardware or software versions.

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.

① 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-101G	FEX-201F-EA	FEX-202F (AM/EA)	FEX-211G	FEX-311F	FEX-511F	FEX-511G	FEX-511G-WIFI
<b>Bandwidth Information</b>								
IPsec VPN (Wired)	890Mbps	220 Mbps	220 Mbps	890Mbps	200 Mbps	200 Mbps	920 Mbps	920 Mbps
IPsec VPN (LTE/5G)	160Mbps	100 Mbps	100 Mbps	170Mbps	100 Mbps	100 Mbps	400 Mbps	400 Mbps
Lan-Extension (VxLAN over IPsec)	DL/UL: 600Mbps/ 350Mbps	200 Mbps	200 Mbps	DL/UL: 600Mbps/ 350Mbps	180 Mbps	180 Mbps	600 Mbs	600 Mbs
LAN-LAN Layer-2 Frames	950Mbps	930 Mbps	930 Mbps	950Mbps	930 Mbps	930 Mbps	950 Mbps	950 Mbps
LAN-WAN NAT 'ed Layer-3 packets	900Mbps	930 Mbps	930 Mbps	900Mbps	930 Mbps	930 Mbps	900 Mbps	900 Mbps
Max WAN Uplinks Supported	1	1	1	1	1	1	1	1
<b>Carrier Certifications</b>								
Verizon	In Progress	✓*	✓*	In Progress	Not Available	✓	✓	✓
ATT	✓	✓*	✓*	✓	✓	✓	✓	✓
PTCRB	✓	✓*	✓*	✓	✓	✓	✓	✓
T-Mobile	In Progress	✓*	✓*	In Progress	—	✓	In-progress	In-progress
Public Safety Network	FirstNet Trusted In Progress	—	—	FirstNet Trusted In Progress	—	FirstNet Capable (LTE Only)	FirstNet Trusted In Progress	FirstNet Trusted In Progress

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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.

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## Ordering Information

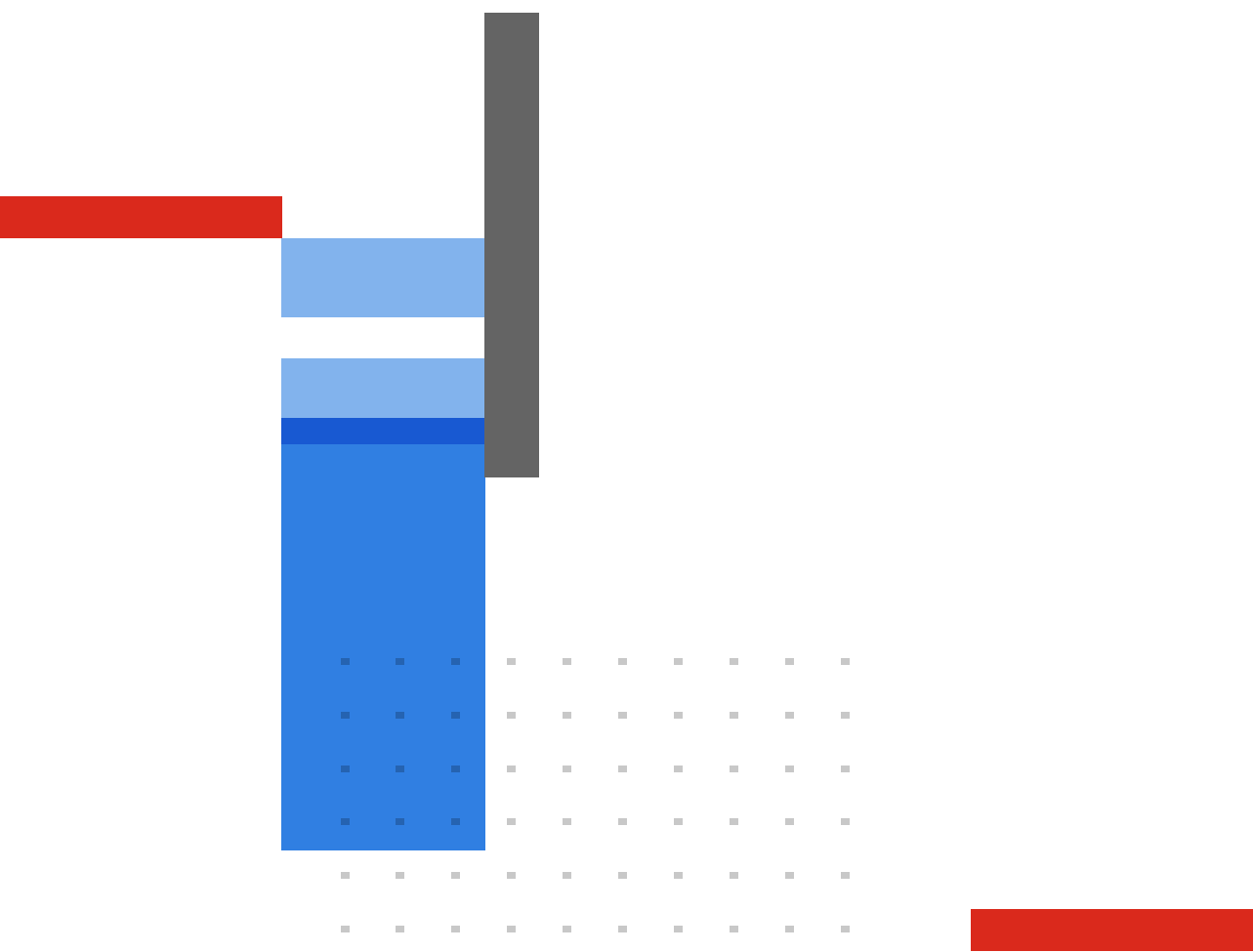
PRODUCT	SKU	DESCRIPTION
<b>3G/4G-LTE/5G Models</b>		
<b>FortiExtender 101G</b>	FEX-101G	Indoor Broadband Wireless WAN Router with 1x "Dual SIM LTE CAT 6 M.2 Module (DL/UL=300M/50Mbps)" + 1x reserved eSIM for NA/APAC/EMEA Carriers. 1x GigE WAN + 4x GigE LAN network ports and GPS/GNSS service, including 1x 802.3at (25.5W) POE PD port or optional DC 12V/2A power adapter (sold separately). 1x USB2.0 Type A port, 1x RJ45 console port and low energy Bluetooth (BLE 5.0 or above). Find region specific power adaptors under accessories.
<b>FortiExtender 201F</b>	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 1x 802.3af/at POE PD port and GPS/GNSS service.
<b>FortiExtender 202F</b>	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 1x 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 1x 802.3af/at POE PD port and GPS/GNSS service.
<b>FortiExtender 211G</b>	FEX-211G	Indoor Broadband Wireless WAN Router with 1x "Dual SIM LTE CAT 12 M.2 Module (DL/UL=600M/150Mbps)" + 1x reserved eSIM for NA/APAC/EMEA Carriers. 1x GigE WAN + 4x GigE LAN network ports and GPS/GNSS service, including 1x 802.3at (25.5W) POE PD port or optional DC 12V/2A power adapter. 1x USB2.0 Type A port, 1x RJ45 console port and low energy Bluetooth (BLE 5.0 or above). Region specific power adaptors sold separately (See Accessories).
<b>FortiExtender 311F</b>	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 1x 802.3at POE PD port (25.5W) and GPS/GNSS service.
<b>FortiExtender 511F</b>	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 1x 802.3at POE PD port (25.5W) and 1x SFP port.
<b>FortiExtender 511G</b>	FEX-511G	Indoor Broadband Wireless WAN Router with 1x "Dual SIM 5G Sub-6GHz M.2 Module" + 1x reserved eSIM for NA/EU/APAC Carriers. It has 1x 2.5GbE + 1x GbE Combo (SFP + RJ45) + 3x GbE RJ45 WAN/LAN configurable network ports, 1x USB2.0 Type A port, 1x RJ45 console port and low energy Bluetooth (BLE 5.0 or above). It can be powered either by PoE 802.3at (25.5W) or optional DC 12V/2A power adapter
	FEX-511G-WIFI	Indoor Broadband Wireless WAN Router with 1x "Dual SIM 5G Sub-6GHz M.2 Module" + 1x reserved eSIM for NA/EU/APAC Carriers. It has 1x 2.5GbE + 1x GbE Combo (SFP + RJ45) + 3x GbE RJ45 WAN/LAN configurable network ports, 1x USB2.0 Type A port, 1x RJ45 console port, 2x2 2.4G/5G concurrent WiFi6 (802.11ax) and low energy Bluetooth (BLE 5.0 or above). It can be powered either by PoE 802.3at (25.5W) or optional DC 12V/2A power adapter. * Select the correct region code.
<b>Ethernet Models</b>		
<b>FortiExtender 200F</b>	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.
<b>FortiCare</b>		
<b>FortiCare Support</b>	FC-10-FE21F-247-02-DD	24x7 FortiCare for FEX-201F-EA.
	FC-10-FA22F-247-02-DD	24x7 FortiCare for FEX-202F-AM.
	FC-10-FE22F-247-02-DD	24x7 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-X311F-247-02-DD	24x7 FortiCare Contract for FEX-311F.
	FC-10-X511F-247-02-DD	24x7 FortiCare Contract for FEX-511F.
	FC-10-F200F-247-02-DD	24x7 FortiCare Contract for FEX-200F.
<b>Accessories</b>		
<b>Power Adapter</b>	SP-FEX12V3A-PA-1-EU	AC Power adapter with EU plug for Europe, for use with FortiExtender FEX-101F, FEX-201F, FEX-202F, FEX-311F, FEX-511F, FEX-511G and FEX-511G-WiFi models.
<b>Power Adapter</b>	SP-FEX12V3A-PA-1-UK	AC Power adapter with UK plug for use with FortiExtender FEX-101F, FEX-201F, FEX-202F, FEX-311F, FEX-511F, FEX-511G and FEX-511G-WiFi models. 10pcs/Pack.
<b>Power Adapter</b>	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-311F, FEX-511F, FEX-511G and FEX-511G-WiFi models.
<b>PoE Injector</b>	GPI-115	1-Port Gigabit PoE Power Injector, 802.3af 15.4Watts 10/100/1000 (PD-3501). for GPI-115 Gigabit PoE Injector.
<b>PoE Injector</b>	GPI-130	1-Port Gigabit PoE Power Injector, 802.3at up to 30W for GPI-130 Gigabit PoE Injector.

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



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