

DATA SHEET

FortiExtender™

Available in:



Appliance

Extend, Ensure, and Secure Your Network

FortiExtender offers scalable, cost-effective, and resilient 5G, LTE, and Ethernet solutions. Driven by Fortinet's unique approach of Security-driven 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 vehicle fleet communication, 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.



Security Fabric Integration

Integration with Fortinet SD-WAN and FortiGate appliances secures internet edge breakouts with a complete set of Web, Content, and Device security controls far beyond other industry solutions.



Optimal Signal Strength

A single PoE cable provides optimal 5G/LTE signal vs complex, lossy antenna cables or limited strength USB modems. Dual SIM and Dual Modem options offer up to 5X network reliability.



Simplified Management

Manage your FortiExtender from the FortiManager, FortiGate, or FortiExtender Cloud dashboard, making network changes, security controls, and policy automation simple.

Highlights

- Improves use experience though optimal 5G and LTE wireless signal
- Provides secure network failover with out of band management (OBM), dual SIM, and dual Modem capabilities
- Integrates with Fortinet Secure SD-WAN for ease of deployment, management, and security
- Offers dynamic, flexible edge connectivity—switch links among ISPs based on data consumption, schedules, or ad hoc
- Enables network access for remote sites and branches located beyond fixed broadband
- Accelerates cloud connectivity for any user with flexible on-ramp paths to SaaS/IaaS
- Reduces overall WAN TCO with FortiGate Network Security Platform integration
- Cloud-based management empowers businesses with globally distributed locations
- Four LAN ports and routing capabilities enable remote connectivity and networking

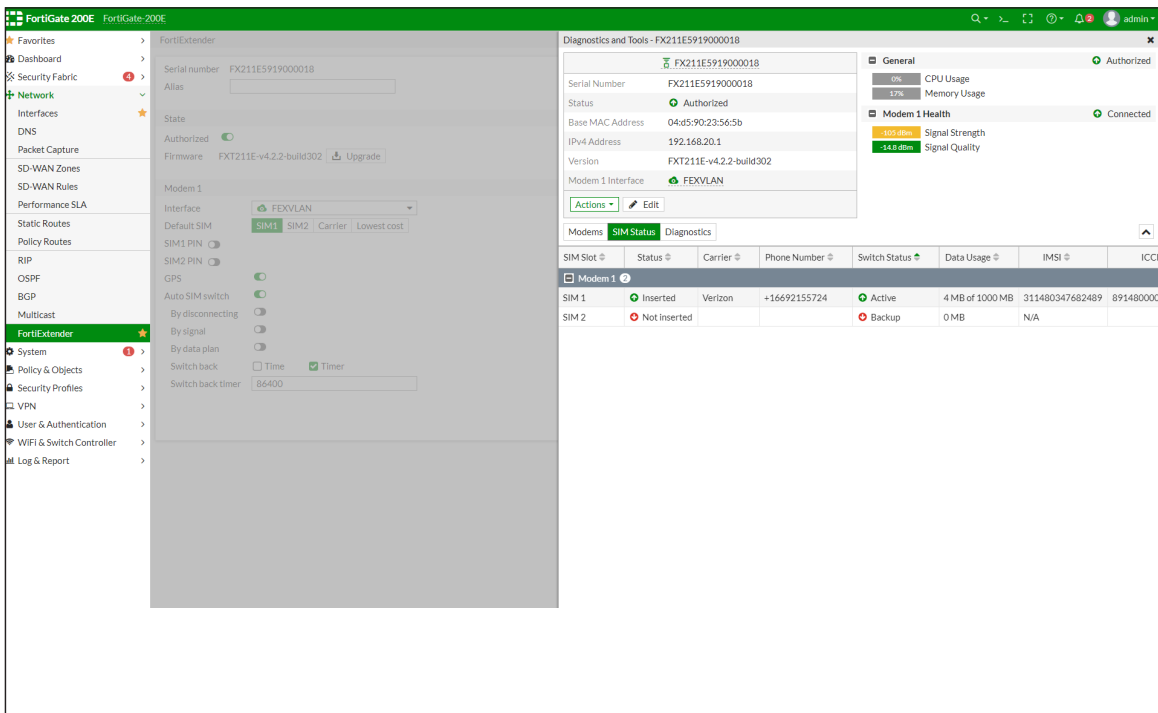
FEATURES

Superior Management, Security, and Control

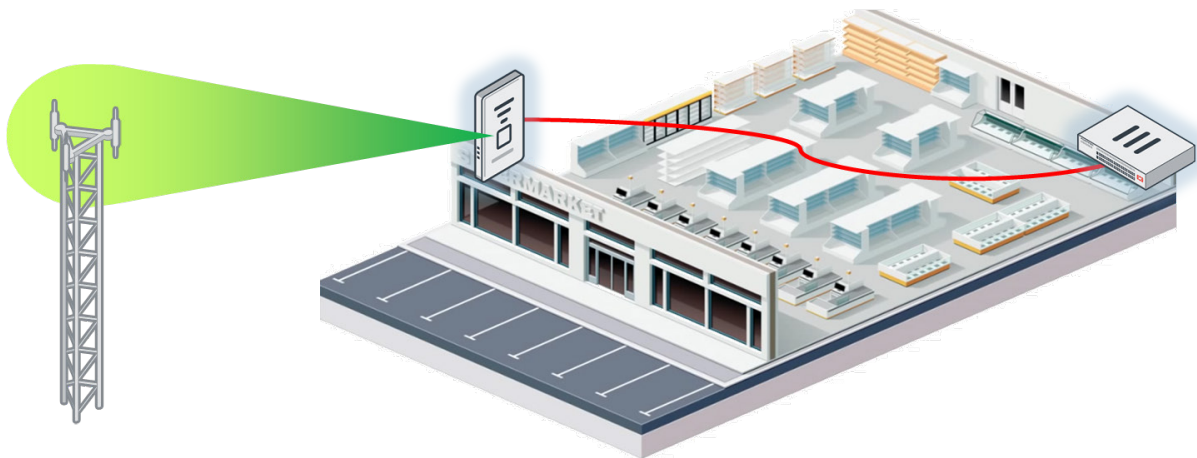
FortiExtenders are a true plug-and-play device. Once connected to the FortiGate, they appear as a regular network interface in FortiOS management. IT administrators can manage the connection as well as implement complete UTM security and control, just like any other FortiGate interface. In addition, FortiOS will display data quota usage on the wireless WAN interface, providing complete visibility of the connection to ensure costly carrier data limits are not exceeded. The superior management, security, and control of the FortiExtender ultimately reduces IT costs while extending, ensuring, and securing the network.

Flexible Deployment for Optimal Signal Strength

FortiExtender devices are designed to receive the best possible 5G/LTE signal. The device utilizes Power over Ethernet (PoE) so you can run a high-quality ethernet cable to a location with optimal signal strength, up to 100m away from the FortiGate or Network Switch.



FortiExtender managed with FortiGate



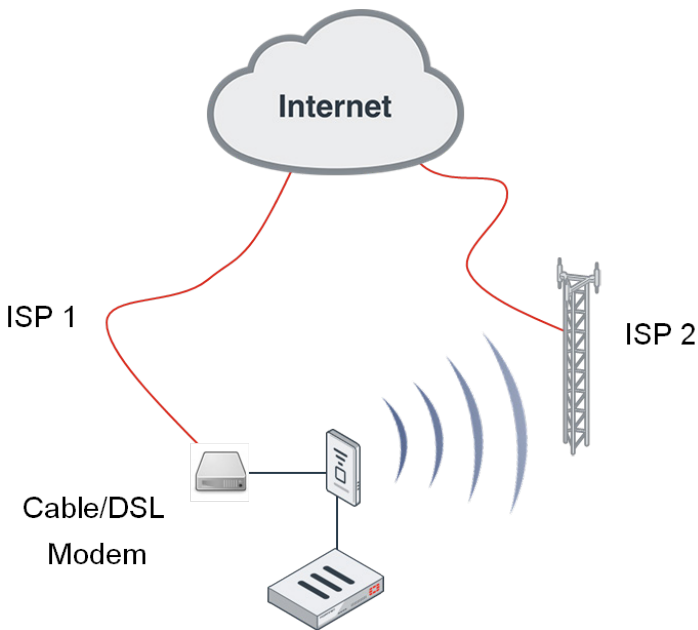
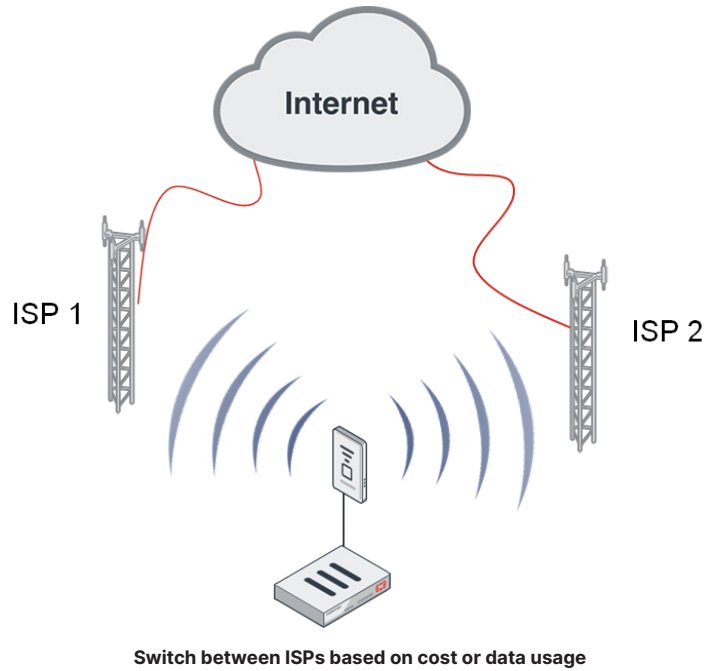
FortiExtender can be placed near a window for optimal signal strength.



FEATURES

Flexible 5G/LTE Connectivity

The FortiExtender family of 5G/LTE appliances support dual SIM and dual modem options, enabling up to four different ISPs for 5G/LTE connectivity. Our dual SIM models allow for one active and one passive cellular link, providing fast failover. Dual Modem options provide two active and two passive links, for the fastest failover and disaster recovery. You can also configure the FortiExtender to utilize an ISP link until a certain data usage threshold is reached. At that point, FortiExtender can automatically shift over to another ISP and use that 5G/LTE connection. Additional conditions can be set to shift the connection between SIM cards, allowing you to balance connectivity and cost.

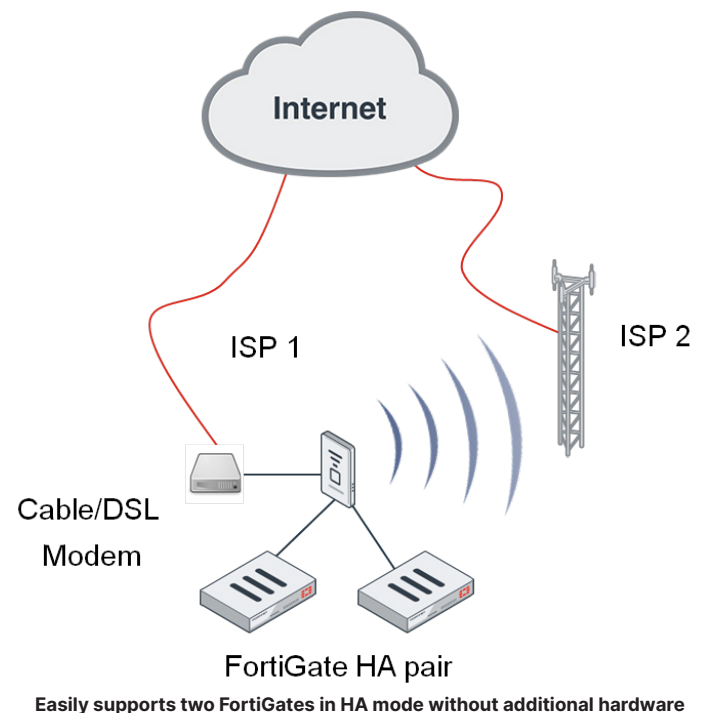


Hybrid WAN-LAN Connectivity

FortiExtender offers four LAN Ethernet ports to enable multiple connections to the LTE connection. 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.

Flexible WAN Connectivity

FortiExtender offers new WAN connectivity options with an Ethernet WAN port, in addition to the LTE WAN links. With this WAN port, you can connect to a DSL, cable, or another modem for additional WAN connectivity options. Load-balancing and failover options enable your FortiExtender to manage your WAN connections across several options to ensure connectivity at the best cost point.



HARDWARE SPECIFICATIONS

	FEX-201E	FEX-211E	FEX-212F
Hardware and System			
Modem Support		Internal (1x Modem)	Internal (2x Modem)
Number of Antennas	3 SMA External, Internal (1x Modem)	3 SMA External	6 SMA External
Power over Ethernet (PoE) Powered	IEEE 802.3af (15.4 W)	IEEE 802.3af (15.4 W)	IEEE 802.3at (25.5 W)
Ethernet Ports	5 GE RJ45 Ports (WAN + LAN)	5 GE RJ45 Ports (WAN + LAN)	5 GE RJ45 Ports (WAN + LAN)
Bluetooth		Maximum Transmit Power 10 dBm Frequency 2.4 GHz	
GPS Antenna Port		Yes	
Mounting Options		Wall Mount / Desktop	
Type		Indoor	
Dimensions			
Height x Width x Length (inches)	1.57 × 6.3 × 6.3 (not including antenna length)	1.57 × 6.3 × 6.3 (not including antenna length)	1.49 × 6.22 × 6.22 (not including antenna length)
Height x Width x Length (mm)	40 × 160 × 160 (not including antenna length)	40 × 160 × 160 (not including antenna length)	38 × 158 × 158 (not including antenna length)
Weight	1.2 lbs (0.55 kg)	1.2 lbs (0.55 kg)	0.90 lbs (0.41 kg)
Environment			
Power Required	12V/2A External Adapter/PoE(af)	12V/2A External Adapter/PoE(af)	12V/2A External Adapter/PoE(af/at)
Power Consumption (Average)	9.38 W	9.38 W	7.55 W
Power Consumption (Maximum)	10.99 W	10.99 W	9.40 W
Operating Temperature		32–104°F (0–40°C)	
Storage Temperature		-4–158°F (-20–70°C)	
Humidity		5–95%	
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, EN 50382, EN 50665, EN 50663, EN 62479) 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/-19, Draft EN 301 489-52) RED 2014/53/EU (EN 300 328, EN 303 413, EN 301 908-1/-2/-13, EN 62311, EN 50382, EN 50665, EN 50663, EN 62479) 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/-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)
UL	UL/CSA 60950-1, UL/CSA 62368-1	UL/CSA 60950-1, 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:

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-511F	FEX-200F
Hardware and System		
Modem Support	Internal (1x Modem)	N/A
Number of Antennas	4 × 5G/LTE/GNSS All-in-One Antennas	N/A
Power over Ethernet (PoE) Powered	IEEE 802.3at (25.5 W)	N/A
Ethernet Ports	5 GE RJ45 Ports, 1 GE SFP Port	5 GbE RJ45 ports (WAN or LAN configurable)
Bluetooth	Maximum Transmit Power 10 dBm Frequency 2.4 GHz	Maximum Transmit Power 10 dBm Frequency 2.4 GHz
GPS Antenna Port	Yes	N/A
Mounting Options	Wall Mount / Desktop	Wall Mount / Desktop
Type	Indoor	Indoor
Dimensions		
Height x Width x Length (inches)	1.77 × 7.09 × 7.09 (not including antenna length)	1.02 × 7.09 × 3.9
Height x Width x Length (mm)	45 × 180 × 180 (not including antenna length)	27 × 180 × 99.9
Weight	1.1 lb (0.5 kg)	1.01 lbs (0.46 kg)
Environment		
Power Required	12V/2.5A External Adapter/PoE(af/at)	12V/2A External Adapter
Power Consumption (Average)	8 W	
Power Consumption (Maximum)	10 W	6.19 W (21.12 BTU/hr) @ -5C 6.81 W (23.24 BTU/hr) @ 50C
Operating Temperature	32–104°F (0–40°C)	32–104°F (0–40°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	5–95%	5–95%
Certifications		
FCC	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
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)	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 303 413, EN 301 908-1/-2/-13/-25, EN 62311)	RED 2014/53/EU (EN 300 328, EN 62311)
	LVD 2014/35/EU (EN 60950-1, EN 62368-1)	LVD 2014/35/EU (EN 60950-1, EN 62368-1)
UL	UL/CSA 62368-1	UL/CSA 60950-1, UL/CSA 62368-1
CB	(IEC/EN 60950-1, IEC/EN 62368-1)	IEC/EN 60950-1, IEC/EN 62368-1

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3G/4G/LTE/5G SPECIFICATIONS

	FEX-201E	FEX-211E	FEX-212F
Regional Compatibility	North and South America and EMEA Carriers, and some APAC Carriers	Global Carriers	Global Carriers
Internal Modem Specifications			
Modem Model	Sierra Wireless EM7455	Sierra Wireless EM7565	Sierra Wireless EM7565 (2x Modem)
5G NR SA and NSA	—	—	—
4G: LTE	CAT-6 Bands: 1, 2, 3, 4, 5, 7, 8, 12, 13, 20, 25, 26, 29, 30, 41	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 (Bands 42, 43, 46 are supported on Rev: P24254-02 and later)	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
3G: UMTS/HSPA+	Bands: 1, 2, 3, 4, 5, 8	Bands:1,2,4,5,6,8,9,19	Bands:1,2,4,5,6,8,9,19
3G: WCDMA	Bands: 1, 2, 3, 4, 5, 8	Bands:1,2,4,5,6,8,9,19	Bands:1,2,4,5,6,8,9,19
Additional Ports	GPS antenna port	GPS antenna port	GPS antenna port
Connector Type	SMA (MAIN, AUX, GPS)	SMA (MAIN, AUX, GPS)	SMA LTE1 (MAIN, AUX, GPS), LTE2(MAIN, AUX, GPS)
Module Certifications	FCC, IC, CE	FCC, IC, CE	FCC, IC, CE, GCF, PTCRB
Diversity	Yes	Yes	Yes
MIMO	Yes	Yes	Yes
GNSS Bias	Yes	Yes	Yes



3G/4G/LTE/5G SPECIFICATIONS

FEX-511F

Regional Compatibility

Global Carriers

Internal Modem Specifications

Modem Model

Quectel RM-502Q-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-20

FDD Bands:

B1/B2/B3/B4/B5/B7/B8/B12(B17)/B13/B14/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71

TDD Bands:

B34/B38/B39/B40/B41/B42/B43/B48

3G: UMTS/HSPA+

Bands: B1/B2/B3/B4/B5/B6/B8/B19

3G: WCDMA

Bands: B1/B2/B3/B4/B5/B6/B8/B19

Additional Ports

MIMO1, MIMO2

Connector Type

4x SMA (MAIN, MIMO1, MIMO2, Diversity/GPS)

Module Certifications

GCF (Global), CE (Europe), PTCRB (North America), FCC (America), IC (Canada), JATE/TELEC (Japan), RCM (Australia/New Zealand)

Diversity

Yes

MIMO

Yes

GNSS Bias

Yes



FEATURES

	FEX-201E	FEX-211E	FEX-212F	FEX-511F
Advanced Radio Technology				
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: 41	—	—	—	✓
LTE Downlink 4 x 4 MIMO bands: B1/B2/B3/B4/B7/B25/B30/B32/B34/B38/B39/B40/B41/B42/B43/B48/B66	—	—	—	✓
Receiver Equalization — improves performance in noisy and highly mobile environments	✓	✓	✓	✓
Receiver Diversity — improves performance at cell edges and in buildings	✓	✓	✓	✓
Dual Modem	—	—	✓	—
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 and L3 Tunnel Modes via VLAN, VxLAN, and 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	✓	✓	!	!
ATT	✓	✓	!	✓
PTCRB	✓	✓	✓	✓
T-Mobile	—	—	—	!

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).



ORDER INFORMATION

PRODUCT	SKU	DESCRIPTION
3G/4G/LTE/5G Models		
FortiExtender 201E	FEX-201E	Indoor Broadband Wireless WAN Extender with 1x Dual SIM 3G/4G/LTE CAT6 modem for North/South America and Europe Carriers, and some APAC Carriers. 5x GE WAN/LAN configurable RJ45 ports including 1x 802.3af/at POE PD port and GPS port.
FortiExtender 211E	FEX-211E	Indoor Broadband Wireless WAN Extender with 1 x Dual SIM 3G/4G/LTE CAT12 global modem, 5 x GE WAN/LAN configurable RJ45 ports including 1x 802.3af/at POE PD port and GPS port.
FortiExtender 212F	FEX-212F	Indoor Broadband Wireless WAN Extender with 2x Dual SIM 3G/4G/LTE CAT12 global modem, 5 x GE WAN/LAN configurable RJ45 ports including 1x 802.3at POE PD port and GPS port.
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 1x 802.3at POE PD port (25.5W) and 1x SFP 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-F201E-247-02-DD	24x7 FortiCare Contract for FEX-201E.
	FC-10-F211E-247-02-DD	24x7 FortiCare Contract for FEX-211E.
	FC-10-X212F-247-02-DD	24x7 FortiCare Contract for FEX-212F.
	FC-10-X511F-247-02-DD	24x7 FortiCare Contract for FEX-511F.
	FC-10-F200F-247-02-DD	24x7 FortiCare Contract for FEX-200F.
Accessories		
Power Adapter	SP-FAP400-PA	AC power adapter for use with FEX-201E, FEX-211E, FEX-212F, FEX-511F, and FEX-200F models.



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