

FortiExtender™

FortiExtender 20D, 40D and 100B

Enterprises are increasingly taking advantage of wireless WAN technology not only as a backup for their wired WAN connections, but also as the primary WAN connection in locations such as; small branch offices, retail “pop-up” stores, Point of Sale systems and kiosks. **A FortiExtender 3G/4G LTE Wireless WAN Extender enables a reliable and stable connection to support these applications.**



Security Fabric Integration

Integration with FortiGate provides single pane of glass management of the wired and wireless WAN connections and security reduces Total Cost of Ownership for your WAN



Designed for Outdoor Use

Can be located to maximize 3G/4G LTE signal strength (up to 100m from the FortiGate appliance or network switch) without using lossy antenna cables or limited strength USB modems.



Superior Performance

4G LTE is the latest high-speed wireless WAN technology, significantly outperforming legacy redundant WAN connections such as dial-up.



Highlights

- Enables placement of 3G/4G LTE Wireless modem outdoors or close to a window, improving signal strength
- Provides a secondary failover WAN link to improve business continuity
- Provides a primary WAN link for retail POS, remote ATM machines and remote kiosk type systems
- Reduces WAN TCO through single pane of glass management integration with the FortiGate Network Security Platform
- Data usage management and alerts to monitor data usage and avoid overcharges
- PoE powered

FEATURES

Superior Management, Security and Control

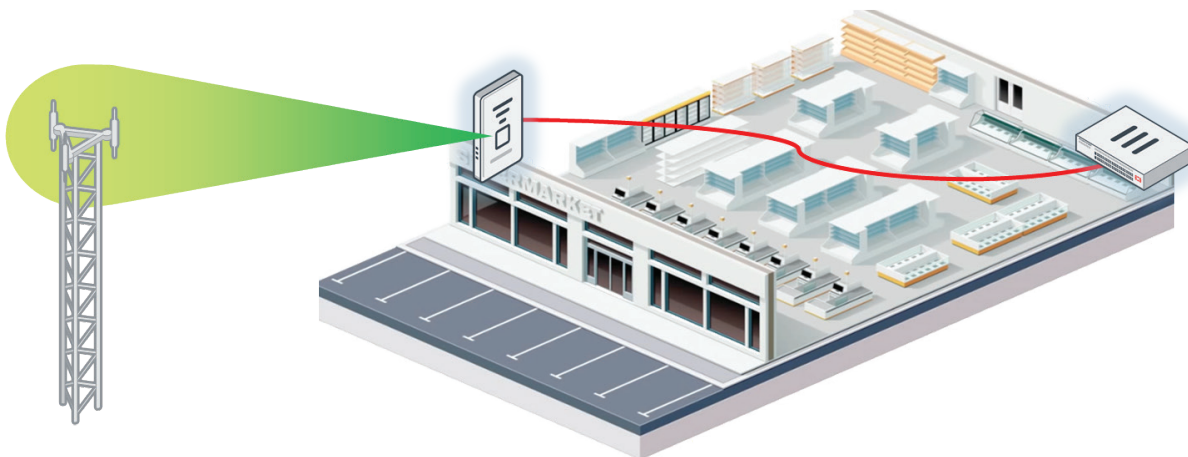
FortiExtenders are a true plug-and-play device. Once connected to the FortiGate, they appear as a regular network interface in FortiOS, providing single pane of glass management. This enables administrators to manage the connection as well as implement complete UTM security and control, just like any 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 the Total Cost of Ownership for your WAN.

Flexible Deployment for Optimal Signal Strength

FortiExtender devices have been engineered to be installed in the best possible location to achieve maximum 3G/4G LTE wireless signal strength. The unit is powered using Power over Ethernet with both indoor and outdoor models available, enabling the device to be located for optimal signal strength, even up to 100m away from the FortiGate or Network Switch.

Primary		Secondary	
Serial Number	FX04DN4N15000041	Serial Number	FXT02D4N15000007
Status	Authorized [Deauthorize] +	Status	Authorized [Deauthorize] +
Interface Name	vlan4094	Interface Name	vlan1001
Model	FortiExtender-40D	Model	FortiExtender-20D
MAC Address	90:6c:ac:37:cf:4a	MAC Address	8:5b:e:f4:ff:f7
IP Address	192.168.1.110	IP Address	192.168.1.2
OS Version	FXT40D-v3.0-build054[Upgrade]	OS Version	FXT20D-v3.0-build054[Upgrade]
Modem Status		Modem Status	
Modem	Sierra Wireless Minipci modem[Details]	Modem	AirCard 340U[Details]
Network	T-Mobil LTE	Network	AT&T LTE
Data Usage		Data Usage	
Current Usage	154.81 kB of 154.81 kB	Current Usage	12.17 MB of 12.17 MB
Last Month Usage	0 B of 0 B (0.00%)	Last Month Usage	0 B of 0 B (0.00%)

FortiOS Web-based GUI — complete FortiExtender visibility and control.



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

SPECIFICATIONS

	FEX-20D	FEX-100B	FEX-40D-XXX*
Hardware and System			
Modem Support	USB	USB	Internal
Number of Antennas	N/A	N/A	3 SMA External
Power over Ethernet (PoE) Powered	IEEE 802.3af (6W) (Not including USB)	IEEE 802.3af (7.3W)	IEEE 802.3af (15.4 W)
Ethernet Ports	1 GE RJ45 Port	1 GE RJ45 Port	1 GE RJ45 Port
GPS Antenna Port	N/A	N/A	
Mounting Options	Wall Mount / Desktop	Pole and wall mount	Wall Mount / Desktop
Type	Indoor	Outdoor / IP55	Indoor
Dimensions			
Height x Width x Length (inches)	1.75 x 7 x 11.4 (Security cover on); 1.75 x 7 x 6 (w/o security cover)	1.9 x 5.7 x 10.6	1.75 x 7 x 6 (not including antenna length)
Height x Width x Length (mm)	45 x 180 x 290 (Security cover on); 45 x 180 x 155 (w/o security cover)	48 x 145 x 268	45 x 180 x 155 (not including antenna length)
Weight	0.8 lb (0.36 kg)	1 lb (454 g)	0.83 lb (0.38 kg)
Environment			
Operating Temperature	32–131°F (0–55°C)	32–131°F (0–55°C)	32–131°F (0–55°C)
Storage Temperature	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)	-4–158°F (-20–70°C)
Humidity	0–95%	0–95%	0–95%
Certifications			
CB	IEC 60950-1:2005	IEC 60950-1:2005	IEC 60950-1:2005
UL	UL 60950-1, CSA C22.2 No. 60950-1-07	UL 60950-1, CSA C22.2 No. 60950-1-07	UL 60950-1, CSA C22.2 No. 60950-1-07
FCC	FCC Part 15, Class B and Subpart C and EICES-003	FCC Part 15, Class B and Subpart C and EICES-003	FCC Part 15, Class B and Subpart C and EICES-003
CE	RR&TTE Directive 1999 / 5 / EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004 / 108 / EC EMC EU Directive 2006 /95 / EC LVD EN 55022 / EN 55024 / EN 61000	RR&TTE Directive 1999 / 5 / EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004 / 108 / EC EMC EU Directive 2006 /95 / EC LVD EN 55022 / EN 55024 / EN 61000	RR&TTE Directive 1999 / 5 / EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004 / 108 / EC EMC EU Directive 2006 /95 / EC LVD EN 55022 / EN 55024 / EN 61000
IC	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS

* see next page or specifics of 3 versions of FEX-40D



FortiExtender 20D



FortiExtender 100B



FortiExtender 40D-XXX

SPECIFICATIONS

	FEX-40D-NAM	FEX-40D-INTL	FEX-40D-AMEU
Regional Compatibility	United States, Canada and Mexico	Europe, Middle East, Central America (except Mexico), South America and Australia	North and South America and EMEA Carriers
Internal Modem Specifications			
Modem Model	Sierra Wireless EM7355	Sierra Wireless EM7305	Sierra Wireless EM7455
LTE	Bands: 2, 4, 5, 13, 17, 25	Bands: 1, 3, 7, 8, 20	Bands: 1, 2, 3, 5, 8
UMTS/HSPA+	Bands: 1, 2, 4, 5, 8	Bands: 1, 2, 5, 8	Bands: 1, 2, 3, 5, 7, 8, 12, 13, 20, 25, 26, 29, 30, 41
WCDMA	Bands: 1, 2, 5, 8		Bands: 1, 2, 5, 8
CDMA 1xRTT/EV-DO Rev A	BC0,BC1,BC10		BC0,BC1,BC10
GSM/GPRS/EDGE	Quad Band 850/900/1800/1900 MHz	Quad Band 850/900/1800/1900 MHz	Quad Band 850/900/1800/1900 MHz
Additional Ports	N/A	N/A	GPS antenna port
Module Certifications	FCC, PTCRB, NCC	CE, GCF, NCC, FCC	FCC, PTCRB, NCC
Diversity	Yes	Yes	Yes
MIMO	Yes	Yes	Yes
GNSS Bias	Yes	Yes	Yes
XLTE (band bonding)	Yes	Yes	Yes
Advanced Radio Technology		2x2 MIMO — Enables industry leading data speeds Receiver Equalization — Improves performance in noisy and highly mobile environments Receiver Diversity — Improves performance at cell edges and in buildings	
Advanced Software Features		Connection status Auto-connect Auto-select network Data byte count Network profile Self-diagnostics Power management — Standby & hibernate selective suspend DIAG & AT Commands IMEI located on outer box and device for simple activation by Verizon Private IP SIM support L2 and L3 Tunnel modes via VLAN 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: Mini-SIM type 2FF SIM security cover IMEI printed at bottom of enclosure for ease of activation	
Carrier Certifications		Verizon Wireless Verizon Wireless DMNR PTCRB for use with AT&T and most North American carriers (in process)	

Certification notes:

In general, you can activate the FEX-40D internal modem with most worldwide carriers, then simply install a SIM card and create a wireless WAN link.

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).

ORDER INFORMATION

Product	SKU	Description
FortiExtender 20D	FEX-20D	Indoor Broadband Wireless WAN Extender with customer supplied 3G/4G USB modem, 1x PoE GE port.
	FC-10-X0021-311-02-DD	8x5 FortiCare Contract
	FC-10-X0021-247-02-DD	24x7 FortiCare Contract
FortiExtender 40D-NAM	FEX-40D-NAM	Indoor Broadband Wireless WAN Extender with embedded dual SIM 3G/4G LTE modem for North American Carriers. 1x GE RJ45 PoE port with optional 11n 300 Mbps (N300) WiFi and GPS positioning.
	FC-10-X0041-311-02-DD	8x5 FortiCare Contract
	FC-10-X0041-247-02-DD	24x7 FortiCare Contract
FortiExtender 40D-INTL	FEX-40D-INTL	Indoor Broadband Wireless WAN Extender with embedded dual SIM 3G/4G LTE modem for European and Australian Carriers. 1x GE RJ45 PoE port with optional 11n 300 Mbps (N300) WiFi and GPS positioning.
	FC-10-X0040-311-02-DD	8x5 FortiCare Contract
	FC-10-X0040-247-02-DD	24x7 FortiCare Contract
FortiExtender 40D-AMEU	FEX-40D-AMEU	Indoor Broadband Wireless WAN Extender with embedded dual SIM 3G/4G LTE cat 6 modem with LTE-advanced (Sierra Wireless EM7455) for North and South America and EMEA Carriers. 1x GE RJ45 802.3af PoE and GPS port.
	FC-10-X04DA-311-02-DD	8x5 FortiCare Contract
	FC-10-X04DA-247-02-DD	24x7 FortiCare Contract
FortiExtender 100B	FEX-100B	Outdoor Broadband Wireless WAN Extender for use with USB modems. 1x GE RJ45 PoE port and 1x USB port for 3G/4G LTE modem (not supplied). 802.3af PoE powered with included injector.
	FC-10-X0100-311-02-DD	8x5 FortiCare Contract
	FC-10-X0100-247-02-DD	24x7 FortiCare Contract
Power Adapter	SP-FAP400-PA	AC power adapter for use with FEX-40D and FEX-20D models.

Note: FortiExtender requires a FortiGate running FortiOS 5.2.4 or above to serve as its controller.

REGION/COUNTRY SKU SUFFIX							
Americas-FCC	China	India	Europe ETSI	Indonesia	International	Japan	Korea
-A	-C	-D	-E	-F	-I	-J	-K
Non-FFCA	Russia	Singapore	Taiwan	Ukraine	Vietnam, Thailand	World 2.4G	Egypt
-N	-P	-S	-T	-U	-V	-W	-Y



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