



DATA SHEET

FortiExtender[™] 3G/4G LTE Wireless WAN Extenders



FortiExtender

FortiExtender 20B, 20D, 40D and 100B 3G/4G LTE Wireless WAN Extenders

Improve Business Continuity with a 3G/4G LTE Backup WAN Connection

A reliable WAN connection is essential for the modern enterprise. With businesses increasingly relying on cloud computing and remote applications, WAN connectivity must be always-on. Ideal for the distributed enterprise, retail location and SMB, FortiExtender 3G/4G LTE Wireless WAN Extenders works in conjunction with the FortiGate Network Security Platform to provide a 3G/4G LTE WAN connection as a backup to the primary wired WAN link. The advanced FortiOS software on the FortiGate facilitates rapid failover from the wired connection to the FortiExtender 3G/4G LTE Wireless WAN connection in the event of a wired failure, ensuring the enterprise location stays online and operational.

Wireless WAN as a Primary WAN Connection

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.

Key Features & Benefits

Integrates into the FortiGate Network Security Platform	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, without using lossy antenna cables or limited strength USB modems.
Power over Ethernet	Can be located up to 100m from the FortiGate appliance or network switch, to optimize wireless signal strength.
Enterprise Performance	4G LTE is the latest high-speed wireless WAN technology, significantly outperforming legacy redundant WAN connections such as dial-up.

3G/4G LTE Wireless WAN connection for Distributed Enterprise, Branch Office, Retail and SMB

- 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





Superior Management, Security and Control

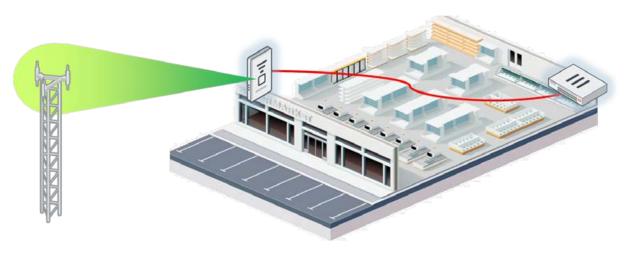
FortiExtenders are a true plug-and-play device. Once connected to the FortiGate, they appear as a regular network interface in FortiOS, providing single pane of glass management. This enables administrators to manage the connection as well as implement complete UTM security and control, just like any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

	Dashboard		FortiExtender Configuration	1		
	FortiView	>	Primary	Refresh	Secondary	Refres
÷	Network Y	Primary Refresh			The second s	
	Interfaces		Serial Number	FX04DN4N15000041	Serial Number	FXT02D4N15000007
	DNS		Status	Authorized [Deauthorize]	Status	Authorized [Deauthorize]
	DNS Servers	_	Interface Name	vlan4094	Interface Name	vlan1001
	WAN LLB		Model	FortiExtender-40D	Model	FortiExtender-20D
	WAN Status Check		MAC Address	90:6c:ac:37:cf:4a	MAC Address	8:5b:e:f4:ff:f7
	WAN LLB Rules		IP Address	192.168.1.110	IP Address	192.168.1.2
	Routing		OS Version	FXT40D-v3.0-build054[Upgrade]	OS Version	FXT20D-v3.0-build054[Upgrade]
	FortiExtender		Modem Status		Modem Status	
¢	System	>	Modelli Status		Modelli Status	
	Policy & Objects	>	Modem	Sierra Wireless Minipci modem[Details]	Modem	AirCard 340U[Details]
•	Security Profiles	>	Network	T-Mobil LTE	Network	AT&TLTE
0	VPN	>	Data Usage		Data Usage	
4	User & Device	>				
ş	WIFI & Switch Controller	>	Current Usage	154.81 kB of 154.81 kB	Current Usage	12.17 MB of 12.17 MB
hh	Log & Report	>	Last Month Usage	0 B of 0 B (0.00%)	Last Month Usage	0 B of 0 B (0.00%)
e	Monitor	>	Configure Settings	Diagnostics	Configure Settings	Diagnostics Make Primary

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



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

SPECIFICATIONS

	FEX-20B	FEX-20D
Hardware and System		
Modem Support	USB	USB
Number of Antennas	N/A	N/A
Power over Ethernet (PoE) Powered	IEEE 802.3af (9.5)	IEEE 802.3af (6W) (Not including USB)
Mounting Options	Wall Mount / Desktop	Wall Mount / Desktop
Туре	Indoor	Indoor
Dimensions		
Height x Width x Length (inches)	1 x 3.8 x 4.9	1.75 x 7 x 11.4 (Security cover on); 1.75 x 7 x 6 (w/o security cover)
Height x Width x Length (mm)	25 x 97 x 124	45 x 180 x 290 (Security cover on); 45 x 180 x 155 (w/o security cover)
Weight	0.7 lb (0.3 kg)	0.8 lb (0.36 kg)
Environment		
Operating Temperature	23-122°F (-5-50°C)	32-131°F (0-55°C)
Storage Temperature	-4–158°F (-20–70°C)	-4-158°F (-20-70°C)
Humidity	5–95%	0–95%
Certifications		
СВ	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
FCC	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	RR&TTE Directive 1999 / 5 / EC
	EN 300 328 / EN 301 489 / EN 301 893 / EN 50385	EN 300 328 / EN 301 489 / EN 301 893 / EN 50385
	EU Directive 2004 / 108 / EC EMC	EU Directive 2004 / 108 / EC EMC
	EU Directive 2006 /95 / EC LVD	EU Directive 2006 /95 / EC LVD
	EN 55022 / EN 55024 / EN 61000	EN 55022 / EN 55024 / EN 61000
IC	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2
	RSS102, Issue 4	RSS102, Issue 4
Directives	Low Voltage Directive RoHS	Low Voltage Directive RoHS

	FEX-40D	FEX-100B
Hardware and System		
Modem Support	Internal	USB
Number of Antennas	2 SMA External	N/A
Power over Ethernet (PoE) Powered	IEEE 802.3af (10W)	IEEE 802.3af (7.3W)
Mounting Options	Wall Mount / Desktop	Pole and wall mount
Туре	Indoor	Outdoor / IP55
Dimensions		
Height x Width x Length (inches)	1.75 x 7 x 6 (not including antenna length)	5.7 x 10.6 x 1.9
Height x Width x Length (mm)	45 x 180 x 155 (not including antenna length)	145 x 268 x 48
Weight	0.83 lb (0.38 kg)	1 lb (454 g)
Environment		
Operating Temperature	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)
Humidity	0–95%	0–95%
Certifications		
CB	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
FCC	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	RR&TTE Directive 1999 / 5 / EC
	EN 300 328 / EN 301 489 / EN 301 893 / EN 50385	EN 300 328 / EN 301 489 / EN 301 893 / EN 50385
	EU Directive 2004 / 108 / EC EMC	EU Directive 2004 / 108 / EC EMC
	EU Directive 2006 /95 / EC LVD	EU Directive 2006 /95 / EC LVD
	EN 55022 / EN 55024 / EN 61000	EN 55022 / EN 55024 / EN 61000
IC	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2
	RSS102, Issue 4	RSS102, Issue 4
Directives	Low Voltage Directive RoHS	Low Voltage Directive • RoHS

USB MODEM SUPPORT: FEX-20B, 20D, AND 100B

Please see the FortiExtender reference manual for a complete list of supported USB modems: http://docs.fortinet.com/fext/reference

INTERNAL MODEM SUPPORT: FEX-40D

	FEX-40D-NAM	FEX-40D-INTL	
Regional Compatibility			
	United States, Canada and Mexico	Europe, Middle East, Central America (except Mexico), South America and Australia	
nternal Modem Specifications			
Modem Model	Sierra Wireless EM7355	Sierra Wireless EM7305	
LTE	Bands: 2, 4, 5, 13, 17, 25	Bands: 1, 3, 7, 8, 20	
UMTS/HSPA+	Bands:1, 2, 4, 5, 8	Bands: 1, 2, 5, 8	
WCDMA	Bands: 1, 2, 5, 8		
CDMA 1xRTT/EV-DO Rev A	BC0,BC1,BC10		
GSM/GPRS/EDGE	Quad Band 850/900/1800/1900 MHz	Quad Band 850/900/1800/1900 MHz	
Module Certifications	FCC, PTCRB, NCC	CE, GCF, NCC, FCC	
Diversity	Yes	Yes	
MIMO	Yes	Yes	
GNSS Bias	Yes	Yes	
XLTE (band bonding)	Yes	Yes	
Advanced Radio Technology	2 x :	2 MIMO — Enables industry leading data speeds	
	Receiver Equalization — Improves performance in noisy and highly mobile environments		
	Receiver Diver	sity 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 locate	d on outer box and device for simple activation by Verizon	
		Private IP SIM support	
	1.2 and 1.3 Tunnel	modes via VLAN and CAPWAP for fast and flexible deployments	
		ne of glass management via FortiGate and FortiManager	
SIM Features		ial-SIM support with intelligent fail-over algorithms	
		SIM size: Mini-SIM type 2FF	
		SIM security cover	
	INAEL	printed at bottom of enclosure for ease of activation	
Corrier Contifications	IIVIEI	·	
Carrier Certifications		Verizon Wireless (in process)	
		Verizon Wireless DMNR	
	PTCRB for u	se with AT&T and most North American carriers (in process)	

Certification notes:

In general, you can activate the FEX-40D internal modern 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 modern 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 20B	FEX-20B	Indoor 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-X0020-311-02-DD	8x5 FortiCare Contract
	FC-10-X0020-247-02-DD	24x7 FortiCare Contract
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 modern for North American Carriers. 1x GE RJ45 PoE port. 802.3af PoE powered with included injector.
	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. 802.3af PoE powered with included injector.
	FC-10-X0040-311-02-DD	8x5 FortiCare Contract
	FC-10-X0040-247-02-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

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



GLOBAL HEADQUARTERS Fortinet Inc. 899 Kifer Road Sunnyvale, CA 94086 United States Tel: +1.408.235.7700 www.fortinet.com/sales

EMEA SALES OFFICE 905 rue Albert Einstein Valbonne 06560 Alpes-Maritimes, France Tel: +33.4.8987.0500

APAC SALES OFFICE 300 Beach Road 20-01 The Concourse Singapore 199555 Tel: +65.6395.2788

LATIN AMERICA SALES OFFICE Sawgrass Lakes Center 13450 W. Sunrise Blvd., Suite 430 Sunrise, FL 33323 United States Tel: +1.954.368.9990

Copyright© 2016 Fortinet, Inc. All rights reserved. Forticate@, FortiCate@ and FortiGuard@, and certain other marks are registered trademarks of Fortinet, Inc., and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics stated herein, Network variables, different network environments and other conditions may negatively affect performance results and other metrics stated herein. Notiting herein represents and state and bin internal lab tests under ideal conditions, and actual performance and other results may vary and may be significantly less effective than the metrics stated herein. Notiting herein represents and state and bin metrics stated herein. Notiting herein represents and in internal lab tests under ideal conditions, and actual performance and there results may vary and may be significantly less effective than the netrics stated herein. Notiver variables, different network environments and other conditions may negatively affect performance metrics expressly dentified in such hindring outcut will perform according to certain expressly-videntified performance metrics expressly dentified in such hindring written contract, signed by fortinet's General lab initied by the disclaimers in the variate in during uncontract. For absolute darly, any such warranty will be limited to performance metrics expressly dentified in such hindring in written contract. For absolute darly, any such warranty will be limited to performance metrics as in Fortinet's internal lab tests, and in no event will Fortinet be responsible for events or issues that are outside of Its reasonable control. Notwithstanding anything to the contrary, Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet's internal lab tests, and in no event will portine to esponsible for events or issues that are outside of Its reasonable cont