



## 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

|  |  |
|--|--|
| <b>Integrates into the FortiGate Network Security Platform</b> | Single pane of glass management of the wired and wireless WAN connections and security reduces Total Cost of Ownership for your WAN.   |
| <b>Designed for Outdoor Use</b>                                | Can be located to maximize 3G/4G LTE signal strength, without using lossy antenna cables or limited strength USB modems.               |
| <b>Power over Ethernet</b>                                     | Can be located up to 100m from the FortiGate appliance or network switch, to optimize wireless signal strength.                        |
| <b>Enterprise Performance</b>                                  | 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



**FortiCare Worldwide 24x7 Support**  
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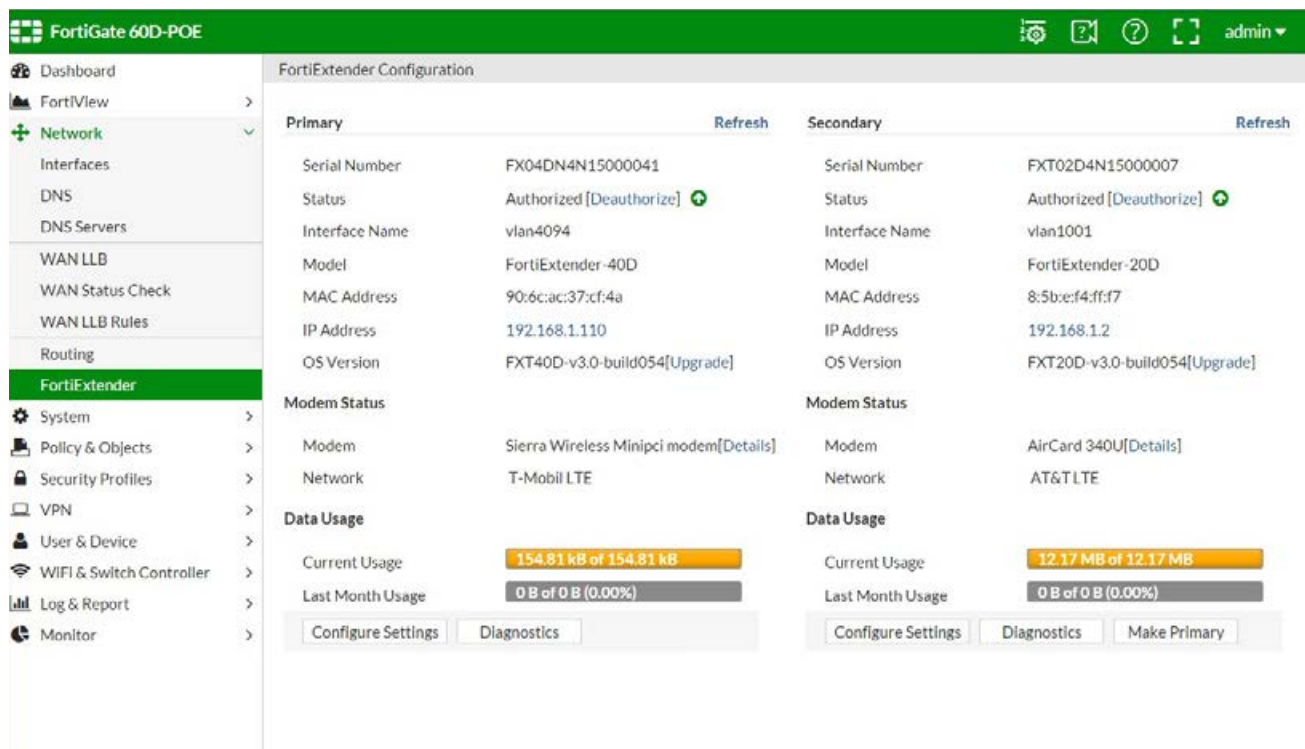
**FortiGuard Security Services**  
www.fortiguards.com

## Superior Management, Security and Control

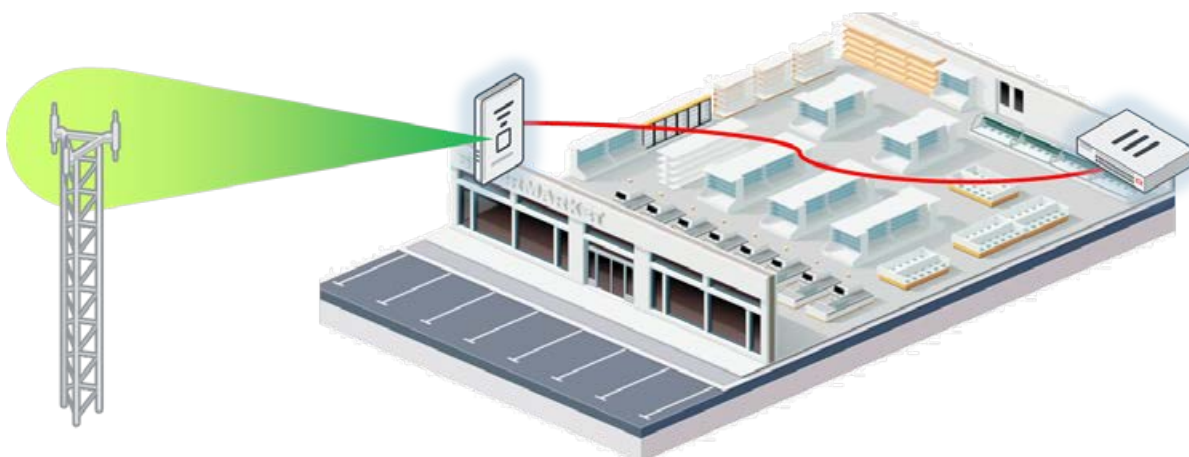
FortiExtenders are a true plug-and-play device. Once connected to the FortiGate, they appear as a regular network interface in FortiOS, providing single pane of glass management. This enables administrators to manage the connection as well as implement complete UTM security and control, just like any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



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   |
|-----------------------------------|---|---|
| <b>Hardware and System</b>        |   |   |
| 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  |
| Type                              | Indoor  | Indoor  |
| <b>Dimensions</b>                 |   |   |
| 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)  |
| <b>Environment</b>                |   |   |
| 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%   |
| <b>Certifications</b>             |   |   |
| 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<br>EN 300 328 / EN 301 489 / EN 301 893 / EN 50385<br>EU Directive 2004 / 108 / EC EMC<br>EU Directive 2006 /95 / EC LVD<br>EN 55022 / EN 55024 / EN 61000 | RR&TTE Directive 1999 / 5 / EC<br>EN 300 328 / EN 301 489 / EN 301 893 / EN 50385<br>EU Directive 2004 / 108 / EC EMC<br>EU Directive 2006 /95 / EC LVD<br>EN 55022 / EN 55024 / EN 61000 |
| IC                                | Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2<br>RSS102, Issue 4  | Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2<br>RSS102, Issue 4  |
| Directives                        | Low Voltage Directive • RoHS  | Low Voltage Directive • RoHS  |

|                                   | FEX-40D   | FEX-100B  |
|-----------------------------------|---|---|
| <b>Hardware and System</b>        |   |   |
| 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   |
| Type                              | Indoor  | Outdoor / IP55  |
| <b>Dimensions</b>                 |   |   |
| 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)  |
| <b>Environment</b>                |   |   |
| 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%   |
| <b>Certifications</b>             |   |   |
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| 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  |
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| IC                                | Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2<br>RSS102, Issue 4  | Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2<br>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  |
|--------------------------------------|---|---|
| <b>Regional Compatibility</b>        | United States, Canada and Mexico  | Europe, Middle East, Central America (except Mexico), South America and Australia |
| <b>Internal Modem Specifications</b> |   |   |
| <b>Modem Model</b>                   | Sierra Wireless EM7355  | Sierra Wireless EM7305  |
| <b>LTE</b>                           | Bands: 2, 4, 5, 13, 17, 25  | Bands: 1, 3, 7, 8, 20   |
| <b>UMTS/HSPA+</b>                    | Bands: 1, 2, 4, 5, 8  | Bands: 1, 2, 5, 8   |
| <b>WCDMA</b>                         | Bands: 1, 2, 5, 8   |   |
| <b>CDMA 1xRTT/EV-DO Rev A</b>        | BC0, BC1, BC10  |   |
| <b>GSM/GPRS/EDGE</b>                 | Quad Band 850/900/1800/1900 MHz   | Quad Band 850/900/1800/1900 MHz   |
| <b>Module Certifications</b>         | FCC, PTCRB, NCC   | CE, GCF, NCC, FCC   |
| <b>Diversity</b>                     | Yes   | Yes   |
| <b>MIMO</b>                          | Yes   | Yes   |
| <b>GNSS Bias</b>                     | Yes   | Yes   |
| <b>XLTE (band bonding)</b>           | Yes   | Yes   |
| <b>Advanced Radio Technology</b>     | 2 x 2 MIMO — Enables industry leading data speeds<br>Receiver Equalization — Improves performance in noisy and highly mobile environments<br>Receiver Diversity — Improves performance at cell edges and in buildings   |   |
| <b>Advanced Software Features</b>    | Connection status<br>Auto-connect<br>Auto-select network<br>Data byte count<br>Network profile<br>Self-diagnostics<br>Power management — Standby & hibernate selective suspend<br>DIAG & AT Commands<br>IMEI located on outer box and device for simple activation by Verizon<br>Private IP SIM support<br>L2 and L3 Tunnel modes via VLAN and CAPWAP for fast and flexible deployments<br>Single pane of glass management via FortiGate and FortiManager |   |
| <b>SIM Features</b>                  | Dual-SIM support with intelligent fail-over algorithms<br>SIM size: Mini-SIM type 2FF<br>SIM security cover<br>IMEI printed at bottom of enclosure for ease of activation   |   |
| <b>Carrier Certifications</b>        | Verizon Wireless (in process)<br>Verizon Wireless DMNR<br>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 20B      | FEX-20B               | Indoor Broadband Wireless WAN Extender for use with USB modems.<br>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-100B              | Indoor Broadband Wireless WAN Extender with use with USB modems.<br>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-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.<br>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.<br>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.<br>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.



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