MultiTech Conduit® is the industry’s most configurable, manageable, and scalable cellular communications gateway for industrial IoT applications. Network engineers can remotely configure and optimize their Conduit performance through DeviceHQ®, the world’s first IoT Application Store and Device Management platform. The Conduit features Wi-Fi/Bluetooth/Bluetooth Low Energy (BT/BLE), GNSS, and two accessory card slots that enable users to plug in MultiTech mCard™ accessory cards supporting their preferred wired or wireless interface to connect a wide range of assets locally to the gateway.

Available options include a LoRaWAN® mCard capable of supporting thousands of MultiTech mDot™ and xDot® long range RF modules connected to remote sensors or appliances. Quick-to-deploy and easy to customize and manage, the Conduit communications gateway realizes your IoT application.
Programmable embedded software provides enhanced security and enables task execution at the edge for reduced latency and cost optimization.

mPower™ Edge Intelligence is a new embedded software offering, building on its popular application enablement platform, to deliver programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions.

mPower is the unification and evolution of well-established MultiTech smart router and gateway firmware platforms. In addition to ongoing support of the current feature-sets, gateway customers can enjoy the additional security features currently available on the MultiConnect rCell 100 Series.

mPower simplifies integration with a variety of popular upstream IoT platforms to streamline edge-to-cloud data management and analytics, while also providing the programmability and processing capability to execute critical tasks at the edge of the network to reduce latency; control network and cloud services costs, and ensure core functionality - even in instances when network connectivity may not be available.

In response to evolving customer security requirements, mPower incorporates a host of new security features including signed firmware validation, enhanced firewall and VPN settings, secure authentication and more.

mPower software specifications can be found here.

ACCESSORIES
MultiTech Conduit Accessories – From the Gateway to the Endpoint
MultiTech Conduit is the center of an integrated IoT platform and comes with the following options:

MultiTech mCard™
MultiTech mCards provide the flexibility needed to manage diverse infrastructures, supporting a wide range of interfaces and communication protocols including:
• Multi-Function Serial, GPIO, Ethernet
• LoRa LPWAN

MultiTech mDot™ & xDot™ – Connecting the “Things”
MultiTech mDot and xDot are secure, regulatory-certified, Arm Mbed™ programmable, low-power RF modules, providing long-range, low bit rate IoT data connectivity to sensors and actuators.

The mDot and xDot are LoRaWAN compliant, providing bi-directional data communication up to 10 miles line-of-sight and 2-3 miles in buildings, using the global sub-GHz ISM radio bands in North America, Europe, and the APAC regions.

The mDot was the first Arm Mbed platform listed on mbed.org that was deployment ready. The mDot supports applications written and compiled in the mbed online environment using developer friendly libraries. Decision making and control can be done at the edge, reducing the need to optimize RF performance and implement complex IoT middleware.

mDots and xDots bring intelligence, reduced complexity and a lower overall bill of material to the edge of the network while supporting a variety of interfaces to connect just about any battery-powered “thing”.

Easily Deploy and Manage Assets
Via DeviceHQ
MultiTech DeviceHQ is the M2M industry’s first IoT online application store to enable customers to easily deploy and scale applications to their connected devices. Drag-and-drop tools easily allow customers to create and manage applications for in-field assets. The DeviceHQ application store gives your business the power to innovate operations management and create value-added services.

Benefits
• “Low Touch” asset deployment reduces costs, complexity and time
• Easily scales to your network needs
• Browse and download a wide variety of custom applications tailored to your business needs
• Reduce truck-rolls using remote performance management and asset updates
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Models</th>
<th>MTCDT-L4N1</th>
<th>MTCDT-LAT1</th>
<th>MTCDT-LVW2</th>
<th>MTCDT-HS</th>
<th>MTCDT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Network Operator</td>
<td>AT&amp;T &amp; Verizon</td>
<td>AT&amp;T</td>
<td>Verizon</td>
<td>AT&amp;T European Network Operators</td>
<td>Ethernet Only</td>
</tr>
<tr>
<td>Cellular Performance</td>
<td>4G-LTE Category 4</td>
<td>4G - LTE Category 3</td>
<td>4G - LTE Category 3</td>
<td>3G-HSPA+</td>
<td>2G - GPRS</td>
</tr>
<tr>
<td>Cellular Fallback</td>
<td>3G - HSPA+ (AT&amp;T only)</td>
<td>3G - HSPA+</td>
<td>No Fallback</td>
<td></td>
<td>2G - GPRS</td>
</tr>
<tr>
<td>Frequency Band (MHz)</td>
<td>4G: B2(1900), B4(AWS1700), B5(850), B17(700), B66(AWS-3 1700), 3G: B2(1900), B4(AWS1700), B5(850)</td>
<td>4G: B2(1900), B4(AWS1700), B5(850)</td>
<td>3G: B2(1900), B5(850)</td>
<td>3G: 850 / 900 / 1700 (AWS) / 1900 / 2100</td>
<td>2G: 850 / 900 / 1800 / 1900</td>
</tr>
<tr>
<td>FirstNet Support</td>
<td>Yes (AT&amp;T)†</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packet Data (LTE FDD)</td>
<td>Up to 150 Mbps peak downlink</td>
<td>Up to 100 Mbps peak downlink</td>
<td>Up to 100 Mbps peak downlink</td>
<td>Up to 21 Mbps peak downlink</td>
<td>Up to 5.76 Mbps uplink</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>9 VDC 1.7A input provided to 100 - 240 VAC 50/60 Hz external adaptor or fused DC Power Cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Processor and Memory</td>
<td>ARM9 processor with 32-Bit ARM &amp; 16-Bit Thumb instruction sets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wi-Fi/Bluetooth</td>
<td>WiFi: 802.11abng (2.4 &amp; 5 Ghz) / Bluetooth: Classic 4.1 and BLE</td>
<td>GPS for LoRa Packet Time Stamping</td>
<td>Concurrent GNSS connections: 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEDs</td>
<td>mPower and mLinux models: PWR (Power), STATUS (Power Status), LS (Link Status), CD (Carrier Detect), SIGNAL (Signal Strength)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LoRa Specifications (for models that include MTAC-LORA Gateway Accessory Card)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LoRa Frequency Band</td>
<td>915 MHz</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LoRa Channel Plan</td>
<td>US915</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LoRa Power Output</td>
<td>27 dBm maximum output power before antenna</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td>2.5 mm miniature barrel jack (screw-on)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E-NET</td>
<td>RJ45 Ethernet jack (10/100 port)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB DEVICE</td>
<td>USB 2.0 Micro B connector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB HOST</td>
<td>USB 2.0 Type A connector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>API, AP2</td>
<td>MultiTech mCard Gateway Accessory Cards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIM (under nameplate)</td>
<td>2FF Mini SIM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SD Card (under nameplate)</td>
<td>Micro SD Card, 32GB (HSMCI) max (industrial temperature range recommended)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antennas</td>
<td>Cellular, GPS, LoRa female SMA / LoRa reverse polarity female SMA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Description</td>
<td>6.35&quot; x 4.23&quot; x 1.69&quot; (161.3 mm x 107.4 mm x 42.8 mm)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>1.0 lbs (0.45 kg) with two accessory cards installed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chassis Type</td>
<td>Anodized aluminum (blue)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental</td>
<td>-30° to +70° C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humidity</td>
<td>Relative humidity 20% to 90%, non-condensing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>UL/cUL 60950-1, UL/cUL 62368-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Network Operator Approvals</td>
<td>PTCRB, AT&amp;T, Verizon Pending: Rogers, Bell, Telus, T-Mobile</td>
<td>PTCRB, AT&amp;T Pending: Rogers, Bell, Telus, T-Mobile</td>
<td>Verizon</td>
<td>PTCRB, AT&amp;T, T-Mobile Pending: Rogers, Bell, Telus GCF Certified Cell Module</td>
<td>N/A</td>
</tr>
<tr>
<td>Warranty</td>
<td>2-Years / <a href="http://www.multitech.com/legal/warranty">www.multitech.com/legal/warranty</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| All future end-user (OEM) devices will and must go through FirstNet certification prior to being included in the FirstNet device ecosystem.
## ORDERING INFORMATION

**MultiTech Conduit® with GNSS and WiFi-Bluetooth (BT/BLE) and MTAC-LORA Gateway Accessory Card**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTCDT-L4N1-247A-US</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth w/MTAC-LORA-H-915 mCard and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>US/Canada</td>
</tr>
<tr>
<td>MTCDT-L4N1-247A-SU</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>US/Canada</td>
</tr>
<tr>
<td>MTCDT-L4N1-247A-US-EU</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>Global</td>
</tr>
</tbody>
</table>

Accessory kit includes: Conduit Gateway with installed MTAC-LORA-915 accessory card and power supply with regional-specific antennas, Ethernet cable, USB cable and quick-start guide. GNSS antenna sold separately.

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**MultiTech Conduit® with GNSS and MTAC-LORA Gateway Accessory Card**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTCDT-L4N1-246A-US</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>US/Canada</td>
</tr>
<tr>
<td>MTCDT-L4N1-246A-SU</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>US/Canada</td>
</tr>
<tr>
<td>MTCDT-L4N1-246A-US-EU</td>
<td>LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+WiFi/Bluetooth and US Accessory Kit (AT&amp;T/Verizon)</td>
<td>Global</td>
</tr>
</tbody>
</table>

Accessory kit includes: Conduit Gateway with installed MTAC-LORA-868 accessory card and power supply with regional-specific antennas, Ethernet cable, USB cable and quick-start guide. GNSS antenna sold separately.

---

**RECOMMENDED ACCESSORIES**

**MultiTech mCard™**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTAC-GPO</td>
<td>GPIO Accessory Card, GPIO Cable Sold Separately</td>
<td>Global</td>
</tr>
<tr>
<td>MTAC-MFSER-DTE</td>
<td>Multi-Function Serial Accessory Card - DTE Interface</td>
<td>Global</td>
</tr>
<tr>
<td>MTAC-MFSER-DCE</td>
<td>Multi-Function Serial Accessory Card - DCE Interface</td>
<td>Global</td>
</tr>
<tr>
<td>MTAC-ETH</td>
<td>Ethernet Accessory Card, Ethernet Cable Sold Separately</td>
<td>Global</td>
</tr>
<tr>
<td>MTAC-LORA-H-915</td>
<td>915 MHz LoRa Accessory Card, Antenna Sold Separately</td>
<td>NAM</td>
</tr>
</tbody>
</table>

**MultiTech mDot™**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTDOT-915-X1-SMA</td>
<td>915 MHz XI LoRaSMA</td>
<td>NAM</td>
</tr>
<tr>
<td>MTDOT-915-XIP-SMA</td>
<td>915 MHz XI LoRaSMA w/Programming Header</td>
<td>NAM</td>
</tr>
<tr>
<td>MTDOT-915-XJ-UFL</td>
<td>915 MHz XI LoRa UFL</td>
<td>NAM</td>
</tr>
<tr>
<td>MTDOT-915-M1-UFL</td>
<td>915 MHz SMT LoRa UFL</td>
<td>NAM</td>
</tr>
<tr>
<td>MTDOT-915-M1-TRC</td>
<td>915 MHz SMT LoRa RF Pad</td>
<td>NAM</td>
</tr>
</tbody>
</table>

**MultiTech xDot™**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTXDOT-NAI-1-AD-1</td>
<td>915 MHz LoRa Module UFL/TRC (Single Pack)</td>
<td>NAM</td>
</tr>
</tbody>
</table>

**Developer Kit, Antennas & Accessories**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTUDK2-ST-MDOT</td>
<td>Developer Kit (includes SMA antenna and USB cable)</td>
<td>Global</td>
</tr>
<tr>
<td>ANGPS-IRM</td>
<td>Antenna Indoor Magnetic for GNSS</td>
<td>Global</td>
</tr>
<tr>
<td>AN668-915A-3HR4</td>
<td>868-915 MHz IR-3 SMA Antenna, 8° (3.0dBI)</td>
<td>Global</td>
</tr>
<tr>
<td>CAR-SMA-UFL</td>
<td>Reverse SMA-to-UFL Coax RF Cable, 6”</td>
<td>Global</td>
</tr>
<tr>
<td>CA-MTAC-GPO</td>
<td>GPIO Cable for MTAC-GPO (2.5 ft)</td>
<td>Global</td>
</tr>
<tr>
<td>CA-9-0</td>
<td>DE5M-DE5F Serial Cable (6 ft)</td>
<td>Global</td>
</tr>
<tr>
<td>CA-USB-A-MICRO-B-3</td>
<td>USB Cable Type A to Type B Micro (3ft)</td>
<td>Global</td>
</tr>
</tbody>
</table>

Go to www.multitech.com for detailed product model numbers.

Produced in the U.S. of U.S. and non-U.S. components. Features and specifications are subject to change without notice.

The LoRa® name and associated logo are trademarks of Semtech Corporation or its subsidiaries. Trademarks and Registered Trademarks: MultiTech and the MultiTech logo, MultiConnect, Conduit, mCard, mDot, xDot, mPower, DeviceIoT. MultiTech Systems, Inc. All other products and technologies are the trademarks or registered trademarks of their respective holders.

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**Services & Warranty**

MultiTech's comprehensive Support Services programs offer a full array of options to suit your specific needs. These services are aimed at protecting your investment, extending the life of your solution or product, and reducing total cost of ownership. Our seasoned technical experts, with an average tenure of more than 10 years, can walk you through smooth installations, troubleshoot issues and help you with configurations.

**Installation Support**

MultiTech's Installation Support Service delivers priority service with the ability to work one-on-one with an experienced MultiTech technical support engineer, to guide you through the installation process for our products.

**Technical Support Services**

At MultiTech, we’re committed to providing you personalized attention and quality service while providing you a quick response to your product support needs. We have several options of support for you to choose from.

For additional information on Support Services as well as other service offerings, please contact your MultiTech representative or visit www.multitech.com/support.go

**World Headquarters**

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Email: sales@multitech.com
www.multitech.com

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