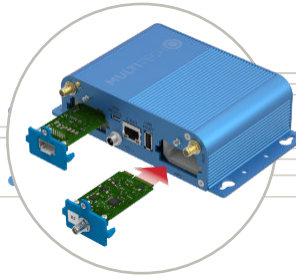
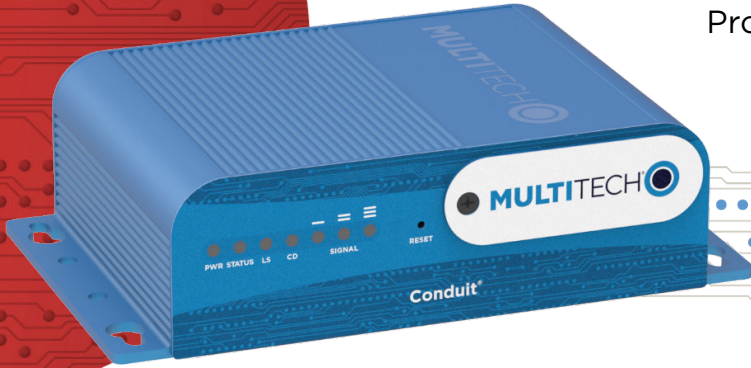


MultiTech Conduit[®]

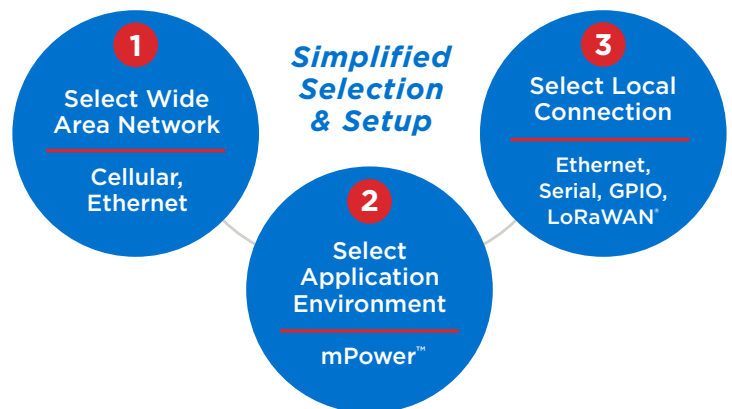
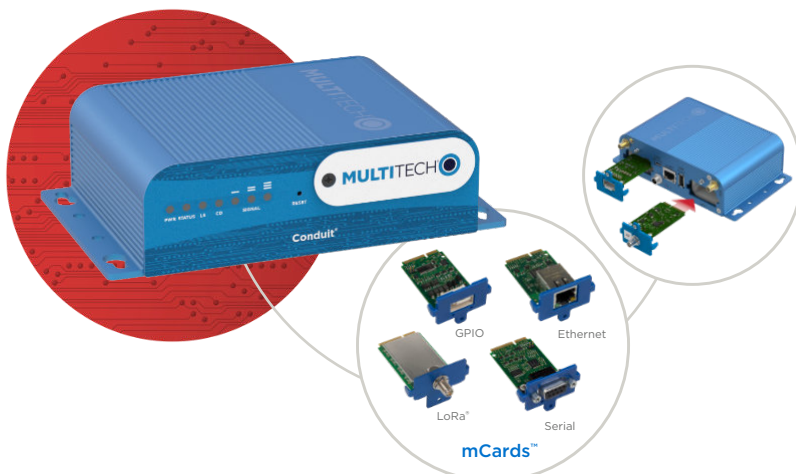
Programmable Gateway for the Internet of Things
Global Models



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 an updated 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.

GATEWAY BENEFITS

- Global MNO and LoRaWAN support
- Backhaul options include Ethernet and optional 4G-LTE cellular for cost effective deployment
- GNSS module for LoRaWAN packet time-stamping and geo-location capability
- Wi-Fi communication supporting 802.11 a/b/g/n 2.4 GHz and 5 GHz with WPA2 personal transmission security. Wi-Fi Access Point and Client modes are supported simultaneously.
- BT Classic and BLE 4.1 communication supports local connectivity with automatic pairing with target devices utilizing 128 bit link key length security.



mPower™

EDGE INTELLIGENCE

Programmable embedded software provides enhanced security and enables task execution at the edge for reduced latency and cost optimization.

mPower™ Edge Intelligence embedded software delivers programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions.

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.

mPower software specifications can be found [here](#).

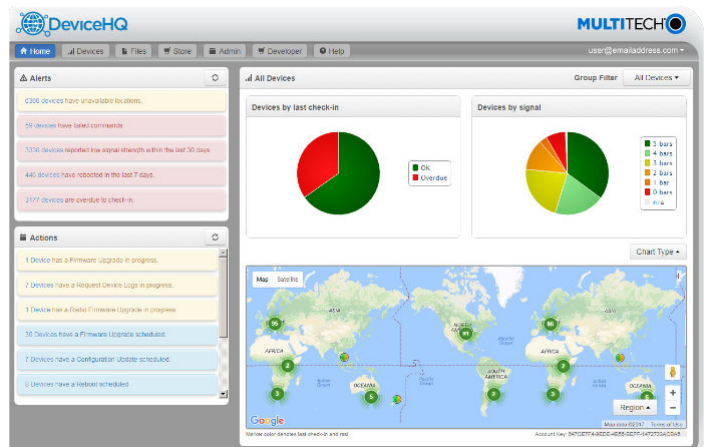
LENS® Embedded by Network Server & Key Management Toolset for LoRaWAN® Networks

LENS is a hybrid LoRaWAN® network management platform that enables deployment and management of LoRaWAN networks at scale. Designed for private and enterprise networks, LENS provides a site-by-site user account and centralized management for LoRa® end devices, as well as configuration and control of Conduit® gateways. LENS has the capability to assign unique access rights to individual users, add gateways and LoRa end nodes in bulk, or create separate organizations and network segmentation to support different IoT use cases or applications.



Cloud-based Application Store and IoT Device Management

MultiTech DeviceHQ® is cloud-based tool set for managing the latest generation of MultiTech devices. It incorporates all the functionality of MultiTech Device Manager, on which so many M2M and IoT applications already rely for remote monitoring, upgrades and configuration of entire device populations – whether one or 1 million. DeviceHQ takes remote device management and maintenance to a new level, by providing an application marketplace, allowing users to browse applications or build their own then easily deploy them to and customize them for remote devices from anywhere.



SPECIFICATIONS

| Models | MTCDD-L4G1 | | | |
|--|--|---|---|---|
| Models | -246A Models | | -247A Models | |
| Mobile Network Operator | 868 Europeran Network Operators | 915 AT&T Verizon T-Mobile | 868 Europeran Network Operators | 915 AT&T Verizon T-Mobile |
| Cellular Radio | MTSMC-L4G1 | | | |
| Cellular Performance | 4G-LTE Category 4 | | | |
| Cellular Fallback | 3G - HSPA +, 2G - GPRS | | | |
| Frequency Band (MHz) | 4G FDD: B1(2100), B2(1900), B3(1800), B4(AWS1700), B5(850), B7(2600), B8(900), B12/B13(700), B18(850), B19(850), B20(800), B25(1900), B26(850), B28(700) 4G TDD: B38(2600), B39(1900), B40(2300), B41(2500) 3G: B1(2100), B2(1900), B4(AWS1700), B5(850), B6(800), B8(900), B19(850) 2G: B2(1900), B3(1800), B5(850), B8(900) | | | |
| Packet Data (LTE) | 4G-FDD: Up to 150 Mbps peak downlink. Up to 50 Mbps peak uplink 4G-TDD: Up to 130 Mbps peak downlink. Up to 30 Mbps peak uplink | | | |
| Input Voltage | 9 VDC 1.7A input provided to 100 - 240 VAC 50/60 Hz external adaptor or fused DC Power Cable | | | |
| Processor and Memory | ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets • 400 MHz • 16K Data Cache • 16K Instruction Cache • 128X16 MB DDR RAM • 256 MB Flash Memory | | | |
| Wi-Fi/Bluetooth | N/A | | Wi-Fi: 802.11abgn (2.4 & 5 GHz) / Bluetooth: Classic 4.1 and BLE | |
| GPS/GNSS | GNSS for LoRa Packet Time Stamping Concurrent GNSS connections: 3 GNSS Systems Supported: (default: concurrent GPS/QZSS/SBAS and GLONASS) | | | |
| LEDs | PWR (Power), STATUS (Power Status), LS (Link Status), CD (Carrier Detect), SIGNAL (Signal Strength) | | | |
| LoRa Specifications | | | | |
| LoRa Frequency Band | 868 MHz | 915 MHz | 868 MHz | 915 MHz |
| LoRa Channel Plan | EU868 IN865 | AU915 US915 AS923 KR920 | EU868 IN865 | AU915 US915 AS923 KR920 |
| Channel Capacity | 8-channels (half duplex) | | | |
| LoRa Maximum Output Power before Antenna | 14 dBm - 27 dBm* | 25.1 dBm | 14 dBm - 27 dBm* | 25.1 dBm |
| Connectors | | | | |
| Power | 2.5 mm miniature barrel jack (screw-on) | | | |
| E-NET | RJ45 Ethernet jack (10/100 port) | | | |
| USB DEVICE | USB 2.0 Micro B connector | | | |
| USB HOST | USB 2.0 Type A connector | | | |
| API, AP2 | MultiTech mCard Gateway Accessory Cards | | | |
| SIM (under nameplate) | 2FF Mini SIM | | | |
| SD Card (under nameplate) | Micro SD Card, 32GB (HSMCI) max (industrial temperature range recommended) | | | |
| Antennas | Cellular, GPS, LoRa: female SMA / LoRa: reverse polarity female SMA | | | |
| Physical Description | | | | |
| Dimensions (L x W x H) | 6.35" x 4.23" x 1.69" (161.3 mm x 107.4 mm x 42.8 mm) | | | |
| Weight | 1.0 lbs (0.45 kg) with two accessory cards installed | | | |
| Chassis Type | Anodized aluminum (blue) | | | |
| Environmental | | | | |
| Operating Temperature | -30° to +70° C | | | |
| Storage Temperature | -40° to +85° C | | | |
| Humidity | Relative humidity 20% to 90%, non-condensing | | | |
| Certifications | | | | |
| EMC Compliance | RED, EN 55032 Class A, EN 301 489-3 V2.1.1, EN 301 489-1 V2.2.0, EN 301-489-52 V1.1.0 | US: FCC Part 15 Class A Canada: ICES-003 Class A Australia: CISPR 32 | RED, EN 55032 Class A, EN 301 489-3 V2.1.1, EN 301 489-1 V2.2.0, EN 301-489-52 V1.1.0 | US: FCC Part 15 Class A Canada: ICES-003 Class A Australia: CISPR 32 |
| Radio Compliance | EN 300 220-1 V3.1.1, EN 300 220-2 V3.1.1, EN 300 328 V2.1.1, EN 301 511 V9.0.2, EN 301 893 V2.1.1, EN 301 908-1 V11.1.1, EN 301 902-2 V11.1.1, EN 301 908-13 V11.1.1, EN 62311-2008 | US: FCC Part 22, 24, 27 Canada: ISED Australia: AS/NZS 4268:2012 + A1:2013 MPE Standard 2014 | EN 300 220-1 V3.1.1, EN 300 220-2 V3.1.1, EN 300 328 V2.1.1, EN 301 511 V9.0.2, EN 301 893 V2.1.1, EN 301 908-1 V11.1.1, EN 301 902-2 V11.1.1, EN 301 908-13 V11.1.1, EN 62311-2008 | US: FCC Part 22, 24, 27 Canada: ISED Australia: AS/NZS 4268:2012 + A1:2013 MPE Standard 2014 |
| Safety | IEC 60950-1, IEC 62368-1 | UL/cUL 60950-1, UL/cUL 62368-1 | IEC 60950-1, IEC 62368-1 | UL/cUL 60950-1, UL/cUL 62368-1 |
| Regulatory Approvals (Approvals Pending) Contact MultiTech for details | Anatel (Brazil), IFETEL (Mexico), SRRC/CCC/NAL (China), KC (South Korea), NCC (Taiwan, China), JATE/TELEC (Japan), FAC (Russia), NBTC (Thailand), IMDA (Singapore), ICASA (South Africa) | | | |
| Mobile Network Operator Approvals | GCF, European Network Operators | US: PTCRB, AT&T, Verizon** Australia: RCM, Optus, Telstra, Vodafone | GCF, European Network Operators | US: PTCRB, AT&T, Verizon** Australia: RCM, Optus, Telstra, Vodafone |
| Mobile Network Operator Approvals (Approvals Pending) Contact MultiTech for details | — | US: T-Mobile, US Cellular Canada: Rogers, Telus | — | US: T-Mobile, US Cellular Canada: Rogers, Telus |
| Quality | MIL-STD-810G: High Temp, Low Temp, Random Vibration. SAE J1455: Transit Drop & Handling Drop, Random Vibration, Swept-Sine Vibration. IEC68-2-1: Cold Temp. IEC68-2-2: Dry Heat | | | |
| Warranty | 2-Years / www.multitech.com/legal/warranty | | | |

* Maximum EIRP is 14 dBm for most of the band, except for 27 dBm at 869.4-869.5

** MTSMC-L4G1 is PTCRB, AT&T, and Verizon approved

ORDERING INFORMATION

MultiTech Conduit® with GNSS and Wi-Fi/Bluetooth (BT/BLE) and MTAC-003 LoRa Gateway Accessory Card

| Model | Description | Region |
|---------------------------|---|--------|
| MTCDT-L4G1-247A-868.R3-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, 868 MHz, GNSS+Wi-Fi/BT w/MTAC-003E00 mCard and Accessory Kit | Global |
| MTCDT-L4G1-247A-915.R3-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS+Wi-Fi/BT w/MTAC-003U00 mCard and Accessory Kit | Global |

Accessory kit includes: Power supply with regional-specific blades (US, EU, GB, AU/NZ), appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

MultiTech Conduit® with GNSS and MTAC-003 LoRa Gateway Accessory Card

| Model | Description | Region |
|---------------------------|--|--------|
| MTCDT-L4G1-246A-868.R3-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, 868 MHz, GNSS w/MTAC-003E00 mCard and Accessory Kit | Global |
| MTCDT-L4G1-246A-915.R3-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, 915 MHz, GNSS w/MTAC-003U00 mCard and Accessory Kit | Global |

Accessory kit includes: Power supply with regional-specific blades (US, EU, GB, AU/NZ), appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

MultiTech Conduit® with GNSS and Wi-Fi/Bluetooth (BT/BLE)

| Model | Description | Region |
|--------------------|--|--------|
| MTCDT-L4G1-247A-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, GNSS+Wi-Fi/BT and Accessory Kit | Global |

Accessory kit includes: Power supply with regional-specific blades (US, EU, GB, AU/NZ), appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

MultiTech Conduit® with GNSS

| Model | Description | Region |
|--------------------|---|--------|
| MTCDT-L4G1-246A-WW | LTE Cat 4 mPower Programmable Gateway 8-channel, GNSS and Accessory Kit | Global |

Accessory kit includes: Power supply with regional-specific blades (US, EU, GB, AU/NZ), appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

RECOMMENDED ACCESSORIES

Developer Kit, Antennas & Accessories

| Model | Description | Region |
|--------------------|--|--------|
| MTUDK2-ST-MDOT | Developer Kit (includes SMA antenna and USB cable) | Global |
| ANGPS-1MM | Antenna Indoor Magnetic for GNSS | Global |
| AN868-915A-1HRA | 868-915 MHz RP-SMA Antenna, 8" (3.0dBi) | Global |
| CARSMA-UFL | Reverse SMA-to-UFL Coax RF Cable, 6" | Global |
| CA-MTAC-GPIO | GPIO Cable for MTAC-GPIO (2.5 ft) | Global |
| CA9-9-D | DE9M-DE9F Serial Cable (6 ft) | Global |
| CA-USB-A-MICRO-B-3 | USB Cable Type A to Type B Micro (3ft) | Global |

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

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.

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

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MULTITECH 

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