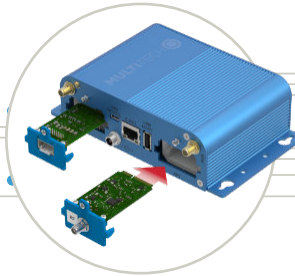
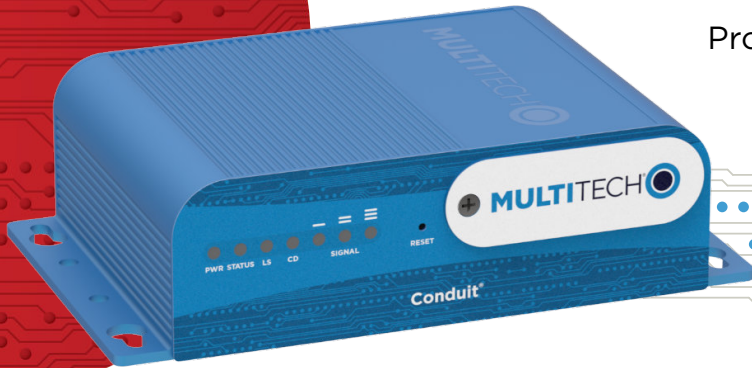


MultiTech Conduit[®]

Programmable Gateway for the Internet of Things
EU868 for Europe



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.

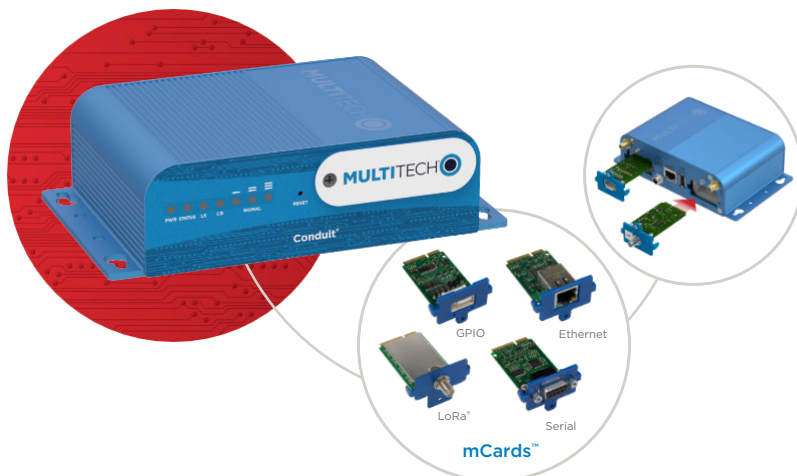
Available options include a LoRaWAN[®] mCard capable of supporting thousands of MultiTech mDot[™] and xDot[®] long range RF modules connected to remote sensors or appliances. Quick-to-deploy and easy to customize and manage, the Conduit communications gateway realizes your IoT application.

GATEWAY BENEFITS

- Wi-Fi communication supporting 802.11 a/b/g/n 2.4 GHz and 5GHz 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.
- GNSS module for LoRaWAN packet time-stamping and geo-location capability
- Ethernet RJ-45 10/100 BaseT for IP backhaul
- Optional 4G-LTE or 3G HSPA+ IP backhaul

LORA FEATURES

- Certified for Europe 868 Mhz ISM bands
- 14 dBm support for European region
- ISM band scanning for optimum LoRa[®] performance
- Listen Before Talk LoRa operating protocol



1
Select Wide Area Network
4G LTE, 3G, 2G, Ethernet

Simplified Selection & Setup

2
Select Application Environment
mPower[™]

3
Select Local Connection
Ethernet, Serial, GPIO, LoRaWAN[®]

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](#).

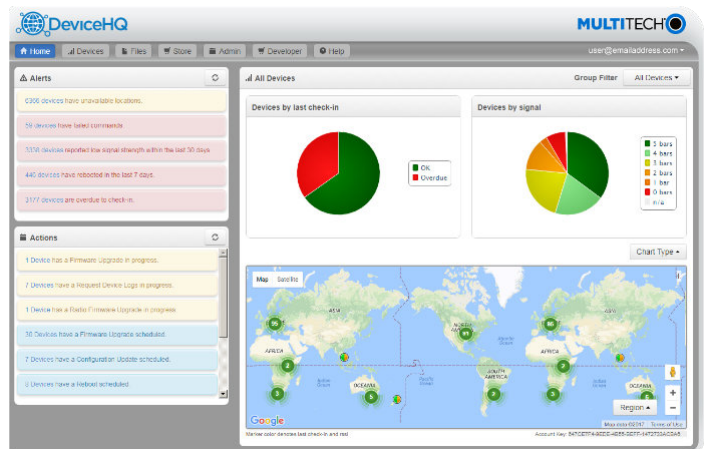
LENS® Embedded by Network Server & Key Management Toolset for LoRaWAN® Networks

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.



HARDWARE SPECIFICATIONS

| Models | MTCDT-L4E1 | MTCDT-H5 | MTCDT |
|--|---|---|--------------|
| Mobile Network Operator | European Network Operators | | |
| Cellular Performance | 4G - LTE Category 4 | 3G-HSPA+ | Non-Cellular |
| Cellular Fallback | 3G - HSPA+, 2G - GPRS | 2G - GPRS | |
| Frequency Band (MHz) | 4G: B1(2100), B3(1800), B7(2600), B8(900), B20(800), B28A(700) 3G: B1(2100), B3(1800), B8(900) 2G: B3(1800), B8(900) | 3G: 850 / 900 / 1700 (AWS) / 1900 / 2100 2G: 850 / 900 / 1800 / 1900 | |
| Packet Data (LTE FDD) | Up to 150 Mbps peak downlink Up to 50 Mbps peak uplink | Up to 100 Mbps peak downlink Up to 50 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 & Memory | ARM9 processor with 32-Bit ARM & 16-Bit Thumb instruction sets <ul style="list-style-type: none"> • 400 MHz • 16K Instruction Cache <ul style="list-style-type: none"> • 16K Data Cache • 128X16M DDR RAM • 256 MB Flash Memory | | |
| Wi-Fi/Bluetooth (-247 models) | Wi-Fi: 802.11abng (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 | mPower models: PWR (Power), STATUS (Power Status), LS (Link Status), CD (Carrier Detect), SIGNAL (Signal Strength) | | |
| LoRa Specifications (-868 models) | | | |
| LoRa Frequency Band | 868 MHz | | |
| LoRa Channel Plan | EU868 (EU863 - 870) | | |
| Channel Capacity | 8-channels (half-duplex) | | |
| LoRa Maximum Output Power | Maximum EIRP: 14 dBm - 27 dBm* | | |
| Connectors | | | |
| Power | 2.5 mm miniature barrel jack (screw-on) | | |
| Ethernet | RJ45 Ethernet jack (10/100 port) | | |
| USB DEVICE | USB 2.0 Micro B connector | | |
| USB HOST | USB 2.0 Type A connector | | |
| AP1, AP2 | MultiTech mCard Gateway Accessory Cards | | |
| SIM (under nameplate) | 2FF Mini SIM | | N/A |
| 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) Designed for IP30 Rating | | |
| Environmental | | | |
| Operating Temperature | -30° to +70° C | | |
| Storage Temperature | -40° to +85° C | | |
| Humidity | 20%-90% RH, non-condensing | | |
| Certifications | | | |
| EMC Compliance | 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 | | |
| 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 | | |
| Safety | IEC 60950-1, IEC 62368-1 | | |
| Network | GCF Certified Cell Module | GCF Certified Cell Module PTCRB, AT&T, T-Mobile | N/A |
| 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 27 dBm at 869.4 - 869.65

ORDERING INFORMATION

MultiTech Conduit® with GNSS & Wi-Fi/Bluetooth & MTAC-LORA Gateway Accessory Card

| Model | Description | Region |
|----------------------------|---|--------|
| MTCDDT-L4E1-247A-868-EU-GB | LTE Cat 4 mPower Programmable Gateway, 8-channel, 868 MHz, GNSS+Wi-Fi/BT w/ EU/UK Accessory Kit | Europe |
| MTCDDT-H5-247A-868-EU-GB | HSPA+ mPower Programmable Gateway, 8-channel, 868 MHz, GNSS+Wi-Fi/BT w/ EU/UK Accessory Kit | Europe |
| MTCDDT-247A-868-EU-GB | Ethernet Only mPower Programmable Gateway, 8-channel, 868 MHz, GNSS+Wi-Fi/BT w/ EU/UK Accessory Kit | Europe |

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

MultiTech Conduit® with GNSS & MTAC-LORA Gateway Accessory Card

| Model | Description | Region |
|----------------------------|--|--------|
| MTCDDT-L4E1-246A-868-EU-GB | LTE Cat 4 mPower Programmable Gateway, 8-channel, 868 MHz, GNSS w/ EU/UK Accessory Kit | Europe |
| MTCDDT-H5-246A-868-EU-GB | HSPA+ mPower Programmable Gateway, 8-channel, 868 MHz, GNSS w/ EU/UK Accessory Kit | Europe |
| MTCDDT-246A-868-EU-GB | Ethernet Only mPower Programmable Gateway, 8-channel, 868 MHz, GNSS w/ EU/UK Accessory Kit | Europe |

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

MultiTech Conduit® with GNSS and Wi-Fi/Bluetooth

| Model | Description | Region |
|-------------------------|---|--------|
| MTCDDT-L4E1-247A-EU-GB | LTE Cat 4 mPower Programmable Gateway, GNSS+Wi-Fi/BT w/ EU/UK Accessory Kit | Europe |
| MTCDDT-H5-247A-US-EU-GB | HSPA+ mPower Programmable Gateway, GNSS+Wi-Fi/BT w/US/EU/UK Accessory Kit | Global |
| MTCDDT-247A-US-EU-GB | Ethernet Only mPower Programmable Gateway, GNSS+Wi-Fi/BT w/US/EU/UK Accessory Kit | Global |

Accessory kit includes: Conduit Gateway with power supply with regional-specific blades, appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

MultiTech Conduit® with GNSS

| Model | Description | Region |
|-------------------------|--|--------|
| MTCDDT-L4E1-246A-EU-GB | LTE Cat 4 mPower Programmable Gateway, GNSS w/ EU/UK Accessory Kit | Europe |
| MTCDDT-H5-246A-US-EU-GB | HSPA+ mPower Programmable Gateway, GNSS w/US/EU/UK Accessory Kit | Global |
| MTCDDT-246A-US-EU-GB | Ethernet Only mPower Programmable Gateway, GNSS w/US/EU/UK Accessory Kit | Global |

Accessory kit includes: Conduit Gateway with power supply with region-specific blades, appropriate antennas, Ethernet cable, USB cable and quick-start guide. GNSS Antenna sold separately

RECOMMENDED ACCESSORIES

MultiTech mCard™

| Model | Description | Region |
|-----------------|---|--------|
| MTAC-GPIO | GPIO Accessory Card, GPIO Cable Sold Separately | Global |
| MTAC-MF5SER-DTE | Multi-Function Serial Accessory Card - DTE Interface | Global |
| MTAC-MF5SER-DCE | Multi-Function Serial Accessory Card - DCE Interface | Global |
| MTAC-ETH | Ethernet Accessory Card, Ethernet Cable Sold Separately | Global |
| MTAC-LORA-H-868 | 868 MHz LoRa Accessory Card, Antenna Sold Separately | EMEA |

Developer Kit, Antennas & Accessories

| Model | Description | Region |
|--------------------|--|--------|
| MTUDK2-ST-MDOT | Developer Kit (includes SMA antenna and USB cable) | Global |
| ANGPS-IMM | 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 |

MultiTech mDot™

| Model | Description | Region |
|---------------------|--|--------|
| MTDOT-868-X1-SMA-x | 868 MHz X1 LoRa SMA (Single or 50 Pack) | Europe |
| MTDOT-868-X1P-SMA-x | 868 MHz X1 LoRa SMA w/Programming Header (Single Pack) | Europe |
| MTDOT-868-X1-UFL-x | 868 MHz X1 LoRa UFL (Single or 50 Pack) | Europe |
| MTDOT-868-M1-UFL-x | 868 MHz SMT LoRa UFL (Single or 100 Pack) | Europe |
| MTDOT-868-M1-TRC-x | 868 MHz SMT LoRa RF Pad (Single or 100 Pack) | Europe |

MultiTech xDot*

| Model | Description | Region |
|--------------------|--|--------|
| MTXDOT-EU1-A00-1-x | 868 MHz LoRa Module UFL/TRC (Single or 100 Pack) | EMEA |
| MTXDOT-EU1-A01-100 | 868 MHz LoRa Module TRC (100 Pack) | EMEA |

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, DeviceHQ: Multi-Tech Systems, Inc. All other products and technologies are the trademarks or registered trademarks of their respective holders.

2020-12 • 86002217 • © 2020 Multi-Tech Systems, Inc. All rights reserved.

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

World Headquarters

Multi-Tech Systems, Inc.
2205 Woodale Drive
Mounds View, MN 55112 U.S.A.
Tel: 763-785-3500
Toll-Free: 800-328-9717
Email: sales@multitech.com
www.multitech.com

EMEA Headquarters

Multi-Tech Systems (EMEA)
Strata House
264-270 Bath Road
Harlington UB3 5JJ
United Kingdom
Tel: +(44) 118 959 7774
Email: sales@multitech.co.uk
www.multitech.co.uk

MULTITECH 