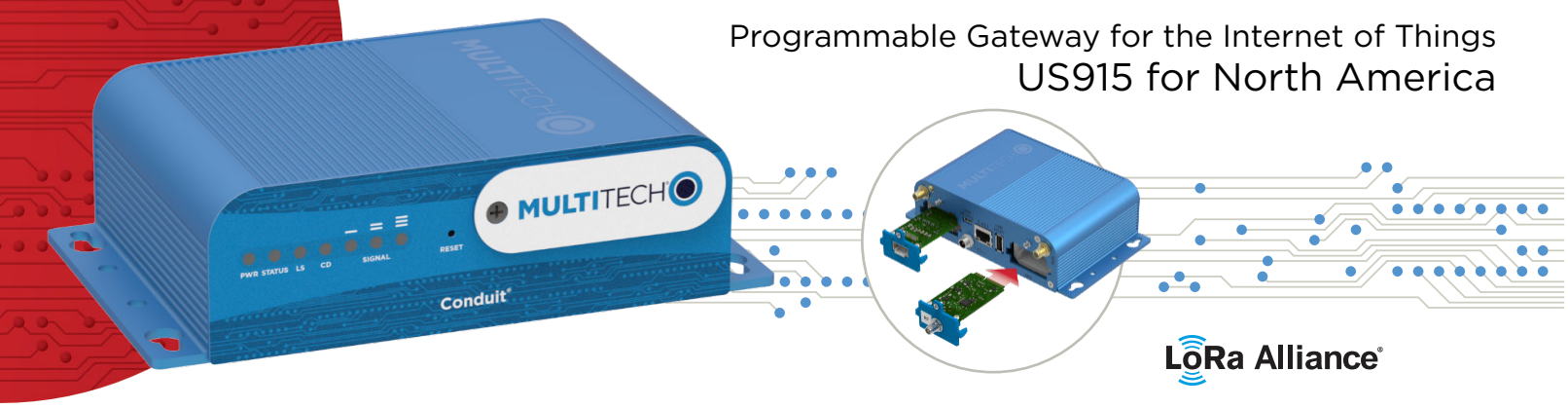
MULTITECH®
CREATE • CONNECT • COMMUNICATE

MultiTech Conduit®

Programmable Gateway for the Internet of Things
US915 for North America



LoRa Alliance®

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.

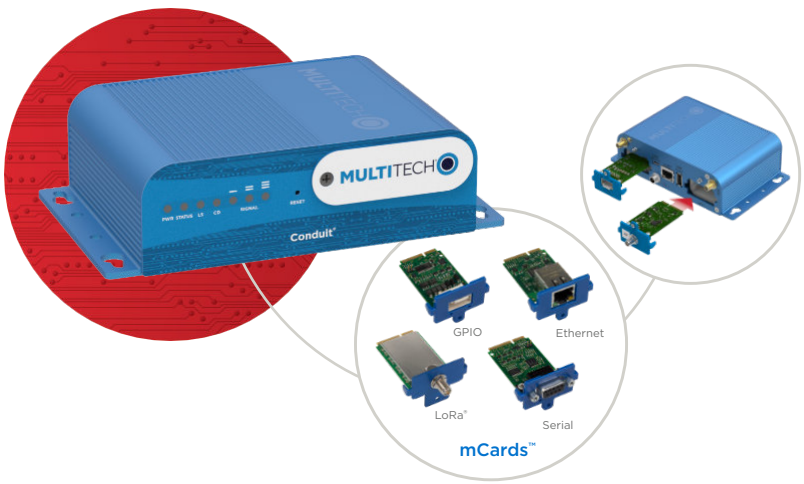
Available options include a LoRaWAN® mCard capable of supporting thousands of MultiTech mDot™ and xDot® long range RF modules connected to remote sensors or appliances. Quick-to-deploy and easy to customize and manage, the Conduit communications gateway realizes your IoT application.

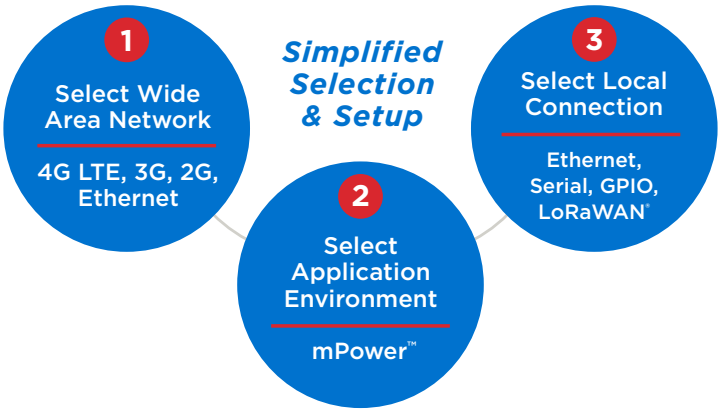
GATEWAY BENEFITS

- 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
- Backhaul options include Ethernet and optional 4G-LTE, 3G, 2G cellular for cost effective deployment

LORA FEATURES

- Certified for North American 915 MHz ISM bands
- ISM band scanning for optimum LoRa® performance
- Listen Before Talk LoRa operating protocol





www.multitech.com/conduit

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.

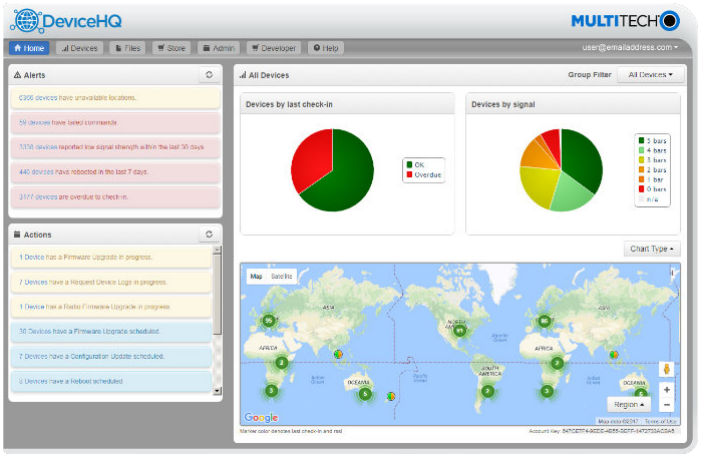
mPower software specifications can be found **here**.

LENS® Embedded 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	MTCDT-L4N1	MTCDT-H5	MTCDT
Mobile Network Operator	AT&T & Verizon	AT&T European Network Operators	Ethernet Only
Cellular Performance	4G-LTE Category 4	3G-HSPA+	No Cellular
Cellular Fallback	3G - HSPA+ (AT&T only)	2G - GPRS	
Frequency Band (MHz)	**AT&T:** 4G: B2(1900), B4(AWS1700), B5(850), B12(700a), B14(700 FirstNet), B66(AWS-3 1700), 3G: B2(1900), B4(AWS1700), B5(850) **Verizon:** 4G: B4(AWS1700), B13(700c) **Other Bands Supported:** B71(600)	3G: 850 / 900 / 1700 (AWS) / 1900 / 2100 2G: 850 / 900 / 1800 / 1900	
FirstNet Support	Yes (AT&T)†	No	
Packet Data (LTE FDD)	Up to 150 Mbps peak downlink Up to 50 Mbps peak uplink	Up to 21 Mbps peak downlink Up to 5.76 Mbps 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 (-247 models)	WiFi: 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 (for models that include MTAC-LORA Gateway Accessory Card)			
LoRa Frequency Band	915 MHz		
LoRa Channel Plan	US915		
Channel Capacity	8-channels (half-duplex)		
LoRa Power Output	27 dBm maximum output power before antenna		
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		
AP1, AP2	MultiTech mCard Gateway Accessory Cards		
SIM (under nameplate)	2FF Mini SIM		None
SD Card (under nameplate)	Micro SD Card, 32GB (HSMCI) max (industrial temperature range recommended)		
Antennas	Cellular, GPS: Female SMA / Wi-Fi, 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	US: FCC Part 15 Class A Canada: ICES-003 Class A	Australia: CISPR 32 EU: 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	US: FCC Part 22, 24, 27 Canada: ISED	US: FCC Part 22, 24, 27 Canada: ISED-003 AU: AS/NZS 4268:2012 + A1:2013 MPE Standard 2014 EU: 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-003 AU: AS/NZS 4268:2012 + A1:2013 MPE Standard 2014
Safety	UL/cUL 60950-1 , UL/cUL 62368-1		
Mobile Network Operator Approvals	PTCRB, AT&T, Verizon	PTCRB, AT&T GCF Certified Cell Module	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		

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