MULTITECH®
CREATE • CONNECT • COMMUNICATE

MultiTech Conduit® IP67 Base Station

IP67 Conduit for Outdoor LoRa® Deployments
US915 for North America

LoRa Alliance®

MultiTech Conduit® IP67 Base Station is a ruggedized IoT gateway solution, specifically designed for outdoor LoRa® public or private network deployments. This highly scalable and certified IP67 solution is capable of resisting the harshest environmental factors including moisture, dust, wind, rain, snow and extreme heat, supporting LoRaWAN® applications in virtually any environment. The enhanced Conduit IP67 solution can support thousands of LoRaWAN certified end nodes, including the MultiTech mDot™* and xDot®*. This flexible solution provides durable, low-power, wide area connectivity in support of M2M and IoT applications for both LoRa service providers and individual enterprises wanting to expand their LoRa network coverage.

Designed for easy deployment, the solution includes a MultiTech Conduit with a LoRa MultiTech mCard™, IP67 enclosure, LoRa antenna to improve outdoor range and Ethernet or optional 4G-LTE backhaul. It can be deployed as part of an existing telecommunications tower, individual stand or wall mount.

*Represents ideal network configuration and equipment set up. Results vary depending on payload amount, transmission frequency, spreading factor used, as well as terrain, RF interference and obstruction type (e.g., metal, cement, etc.)

BENEFITS

- Greatly expands LoRa network coverage
- External antenna increases LoRa connectivity to remote assets
- Improved design enhancing thermal performance and easy external port access to SIM and USB connectors

FEATURES

- ISM band scanning for optimum LoRa performance
- Listen Before Talk operating protocol
- GNSS for location coordinate information
- Certified for North American 915 MHz ISM bands

www.multitech.com/IP67

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**.

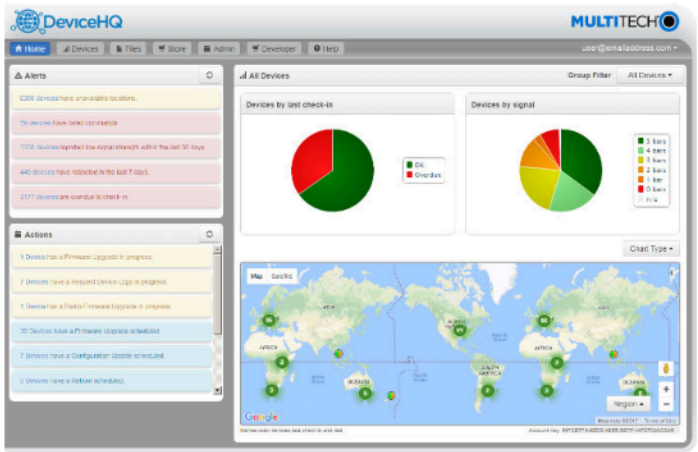
LENS® Embedded Network Server & Key Management Toolset for LoRaWAN® Networks

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.

DeviceHQ®

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.

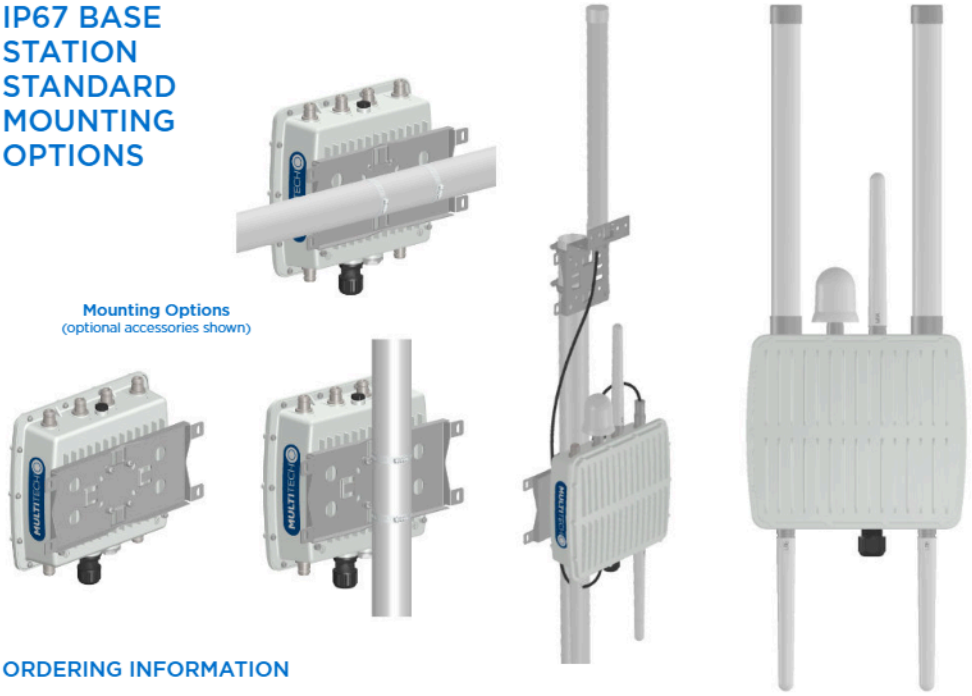


HARDWARE SPECIFICATIONS

Models	MTCDTIP-L4N1	MTCDTIP-915
Mobile Network Operator	AT&T & Verizon	No Cellular
Cellular Performance	4G-LTE Category 4	
Cellular Fallback	3G - HSPA+ (AT&T only)	
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)	
FirstNet Support	Yes (AT&T)†	
Packet Data (LTE FDD)	Up to 150 Mbps peak downlink Up to 50 Mbps peak uplink	
Input Voltage	Ethernet Input Power: 37 - 57 VDC. POE Standard: IEEE 802.3at, provided by PSE injector with power rating of 25W or greater	
Processor & 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 (-267 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*	PR (Power), ST (Status), L1, L2	
LoRa Specifications		
LoRa Frequency Band	915 MHz	
LoRa Channel Plan	US915	
Channel Capacity	8-channels (half-duplex)	
LoRa Power Output	27 dBm maximum ERP (before LoRa antenna)	
Connectors		
E-NET	RJ45 Ethernet jack (10/100 port) (PoE)	
USB HOST*	USB 2.0 Type A connector	
SIM*	3FF Micro SIM	None
Antennas	Cellular, GPS, LoRa: N-Type Female	
Physical Description		
Dimensions (LxWxH)	262 mm x 91 mm x 257 mm	
Weight	2.75 kg	
Chassis Type	IP67 Rated, Aluminum	
Environmental		
Operating Temperature	-40° to +70° C	
Storage Temperature	-40° to +85° C	
Certifications		
EMC Compliance	US: FCC Part 15 Class B / Canada: ICES-003 Class B	
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
Safety	UL/cUL 60950-1 | UL/cUL 62368-1	
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	

* SIM, LEDs, and USB port accessible under IP67-rated bottom cap cover
† All future end-user (OEM) devices will and must go through FirstNet certification prior to being included in the FirstNet device ecosystem.

IP67 BASE STATION STANDARD MOUNTING OPTIONS



Mounting Options
(optional accessories shown)

ORDERING INFORMATION

MultiTech Conduit® IP67 Base Station with GNSS and Wi-Fi/Bluetooth

Model	Description	Region
MTCDTIP-L4N1-267A-915	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 915 MHz, w/ GNSS+WiFi/BT and Accessory Kit (AT&T/Verizon)	US/Canada

Accessory Kit Includes: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna, 1 Wi-Fi/BT antenna

MultiTech Conduit® IP67 Base Station with GNSS

Model	Description	Region
MTCDTIP-L4N1-266A-915	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 915 MHz, w/ GNSS and Accessory Kit (AT&T/Verizon)	US/Canada

Accessory Kit Includes: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna

MultiTech Conduit® IP67 Base Station Ethernet Only Models

Model	Description	Region
MTCDTIP-267A-915	Ethernet only mPower Conduit IP67 Base Station 8-channel, 915 MHz, w/ GNSS+WiFi/BT and Accessory Kit	US/Canada
MTCDTIP-266A-915	Ethernet only mPower Conduit IP67 Base Station 8-channel, 915 MHz, w/ GNSS and Accessory Kit	US/Canada

Accessory Kit Includes: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna, 1 Wi-Fi/BT antenna

RECOMMENDED ACCESSORIES

MultiTech mDot™

Model	Description	Region
MTDOT-915-X1-SMA	915 MHz X1 LoRa SMA	NAM
MTDOT-915-X1P-SMA	915 MHz X1 LoRa SMA w/Programming Header	NAM
MTDOT-915-X1-UFL	915 MHz X1 LoRa UFL	NAM
MTDOT-915-M1-UFL	915 MHz SMT LoRa UFL	NAM
MTDOT-915-M1-TRC	915 MHz SMT LoRa RF Pad	NAM

MultiTech xDot®

Model	Description	Region
MTXDOT-NA1-A00-1	915 MHz LoRa Module UFL/TRC (Single Pack)	NAM

Developer Kit & Accessories

Model	Description	Region
MTUDK2-ST-MDOT	Developer Kit (includes SMA antenna and USB cable)	Global
PS-56V-PoE-NAM-1	Single Port 30W Power over Ethernet Transformer with US Power Cord (1 Pack)	US/Canada
PS-56V-PoE-NAM-5	Single Port 30W Power over Ethernet Transformer with US Power Cord (5 Pack)	US/Canada
MTKIT-IP67-MF	Conduit IP67 Accessory Kit (includes antenna mounting bracket, coax cable, two clamps and lightning arrestor)	Global
LGT-ARRST-1	Conduit IP67 Base Station Lightning Arrestor (1 Pack)	Global
LGT-ARRST-5	Conduit IP67 Base Station Lightning Arrestor (5 Pack)	Global
CA-NTYPE-MF-1	Outdoor Coax Cable, N Type Male & Female connectors, 5 feet (1 Pack)	Global
CA-NTYPE-MF-5	Outdoor Coax Cable, N Type Male & Female connectors, 5 feet (5 Pack)	Global
MB-ANT-IP67-1	Conduit IP67 Antenna Mounting Bracket, Mounts One Antenna (1 Pack)	Global
MB-ANT-IP67-5	Conduit IP67 Antenna Mounting Bracket, Mounts 1 Antenna (5 Pack)	Global
AN868-915A-1-IP67	IP67 LoRa Antenna, 15.3" (4.5 dBi) (1 Pack)	Global
AN868-915A-5-IP67	IP67 LoRa Antenna, 15.3" (4.5 dBi) (5 Pack)	Global
ANLTE5-1-IP67	IP67 LTE Antenna, 7" (3.5 dBi) (1 Pack)	Global
ANLTE5-5-IP67	IP67 LTE Antenna, 7" (3.5 dBi) (5 Pack)	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.

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

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MULTITECH

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