

MultiTech Conduit[®] IP67 Base Station

IP67 Conduit for Outdoor LoRa[®] Deployments
Global Models

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 MultiTech sensors and 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.)

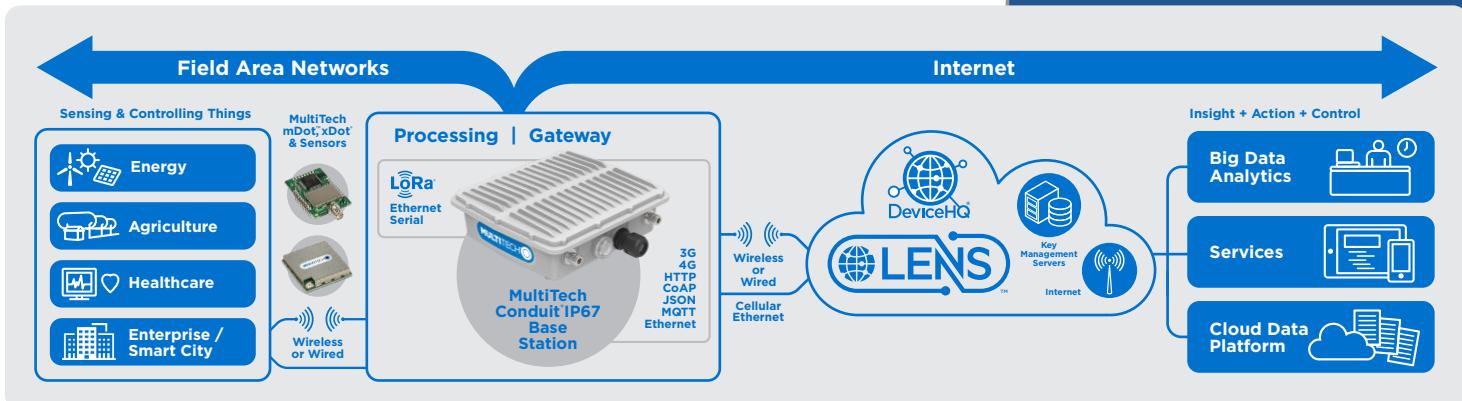


BENEFITS

- Global MNO and LoRaWAN support
- 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 module for LoRaWAN packet fine-stamping and network-based location





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.

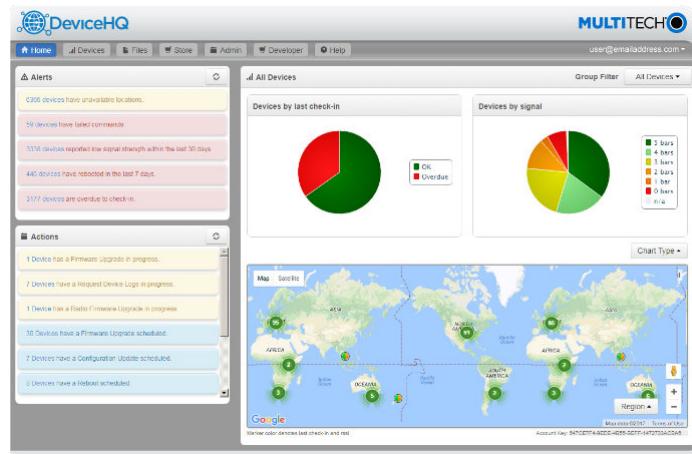


Cloud-based Application Store and IoT Device Management

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 and then easily deploy and customize them for remote devices located anywhere.

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.



SPECIFICATIONS

MTCDTIP						
Description	868 Models		915 Models			
Models	-266A (GNSS only)		-267A (GNSS/WiFi/BT)			
General Specifications						
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 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: 802.11abng (2.4 & 5 GHz) / Bluetooth: Classic 4.1 and BLE	N/A	Wi-Fi: 802.11abng (2.4 & 5 GHz) / Bluetooth: Classic 4.1 and BLE		
GPS/GNSS	GNSS for LoRa Packet Fine-Time-Stamping / Concurrent GNSS connections: 3 GNSS Systems Supported: (default: concurrent GPS/QZSS/SBAS and GLONASS)					
LEDs**	PR (Power), ST (Status, user-programmable), L1 (user-defined), L2: (user-defined)					
LoRa Specifications (All models include MTAC-003 Gateway Accessory Card)						
LoRa Frequency Band	868 MHz		915 MHz			
LoRa Channel Plan	EU868 / IN865		AU915 / US915 / AS923 / KR920			
Channel Capacity	8-channels (half duplex)					
Spreading Factors	SF5 to SF12					
LoRa Maximum Output Power before Antenna	14 dBm - 27 dBm*		25.1 dBm			
Connectors						
Ethernet	RJ45 Ethernet jack (10/100 port) (PoE)					
USB HOST**	USB 2.0 Type A connector					
SIM**	3FF Micro SIM (-L4G1 models only)					
Antennas	GPS, female SMA / Cellular (MTCDTIP-L4G1 models only): female SMA / LoRa, Wi-Fi/BT: reverse polarity female SMA					
Physical Description						
Dimensions (L x W x H)	10.31" x 3.58" x 10.12" (262 mm x 91 mm x 257 mm)					
Weight	6.06 lbs (2.75 kg)					
Chassis Type	IP67-Rated, Aluminum					
Environmental						
Operating Temperature	-40° to +70° C					
Storage Temperature	-40° to +85° C					
Cellular Specifications (MTCDTIP-L4G1 models only)						
Mobile Network Operator	European Network Operators		AT&T / Verizon			
Cellular Radio	MTSMC-L4G1					
Cellular Performance	4G-LTE Category 4					
CellularFallback	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					
Certifications						
EMC Compliance	CE Mark, UKCA EN 55024:2010 (Immunity) EN 55032:2012/AC:2013 (Emissions)		US: FCC Part 15 Class A Canada: ICES-003 Class A Australia: CISPR 32			
Radio Compliance	RED, Article 3.1b EN 301 489-1 V2.2.3 (General) EN 301 489-3 V2.1.1 (SRD devices) EN 301 489-17 V3.2.2 (WiFi/BT) EN 301 489-19 V2.1.1 (GNSS receivers) EN 301 489-52 V1.0 (Cellular - MTCDTIP-L4G1 models only) RED, Article 3.2 EN 303 413 V1.1.1 (GNSS) EN 300 328 V2.2.2 (2.4 GHz ISM) EN 301 511 V12.5.1 (GSM-2G - MTCDTIP-L4G1 models only) EN 301 893 V2.1.1 (5 GHz RLAN) EN 301 908-1 V13.1.1 (IMT Cellular 3G-4G - MTCDTIP-L4G1 models only) EN 301 908-2 V13.1.1 (WCDMA - 3G - MTCDTIP-L4G1 models only) EN 300 220-2 V3.2.1 (SRD devices) EN 301 908-13 V13.1.1 (LTE - 4G - MTCDTIP-L4G1 models only) EG 203 367 V1.1.1 (Multi-Radio transmissions) MPE/RF Exposure: 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 2nd Edition + Am2:2013 / EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 IEC 62368-1:2014 / AC:2017					
Regulatory Approvals (Approvals Pending) Contact MultiTech for details	Anatel (Brazil), IFETEL (Mexico), SRRCC/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			
Mobile Network Operator (Approvals Pending) Contact MultiTech for details	—					
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					
Warranty	2-Years / www.multitech.com/legal/warranty					

* Maximum EIRP is 14 dBm for most of the band, except 27 dBm at 869.4-869.5 / ** SIM, LEDs, and USB port accessible under IP67-rated bottom cap cover / *** MTSMC-L4G1 is PTCRB, AT&T, and Verizon approved

IP67 BASE STATION STANDARD MOUNTING OPTIONS



Mounting Options
(optional accessories shown)

ORDERING INFORMATION

MultiTech Conduit® IP67 Base Station with Wi-Fi/BT/BLE Support

Model	Description	Region
MTCDTIP-L4G1-267A-868.R3	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 868 MHz, GNSS+Wi-Fi/BT with MTAC-003E00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Global
MTCDTIP-L4G1-267A-915.R3	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 915 MHz, GNSS+Wi-Fi/BT with MTAC-003U00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Global
MTCDTIP-267A-868.R3	Ethernet-only mPower Conduit IP67 Base Station 8-channel, 868 MHz, GNSS+Wi-Fi/BT with MTAC-003E00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Global
MTCDTIP-267A-915.R3	Ethernet-only mPower Conduit IP67 Base Station 8-channel, 915 MHz, GNSS+Wi-Fi/BT with MTAC-003U00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Global

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MTCDTIP-L4G1-266A-915.R3	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 915 MHz, GNSS with MTAC-003U00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna	Global
MTCDTIP-266A-868.R3	Ethernet-only mPower Conduit IP67 Base Station 8-channel, 868 MHz, GNSS with MTAC-003E00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna	Global
MTCDTIP-266A-915.R3	Ethernet-only mPower Conduit IP67 Base Station 8-channel, 915 MHz, GNSS with MTAC-003U00 and Accessory Kit - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna	Global

RECOMMENDED ACCESSORIES

Model	Description	Region
MTKIT-MTCDTIP-MF-IP67	IP67 Accessory Kit w/Mounting Bracket, 5' Coax Cable N Type, Male/Female Connectors, IP67-rated Lightning Arrestor, Grounding Strap Adapter Kit, and Weatherproofing Kit	Global
LGT-ARRST-IP67-1	IP67-rated Lightning Arrestor and Grounding Strap Adapter Kit (1 Pack)	Global
LGT-ARRST-IP67-5	IP67-rated Lightning Arrestor and Grounding Strap Adapter Kit (5 Pack)	Global
CA-NTYPE-MF-1	Outdoor Coax Cable, N Type Male & Female connectors, 5 ft (1 Pack)	Global
CA-NTYPE-MF-5	Outdoor Coax Cable, N Type Male & Female connectors, 5 ft (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 One 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.

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, Conduit, mDot, xDot, mPower, DeviceHQ, Multi-Tech 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.

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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