Available from:
CONCEPT13.CO.UK
(+44) 0333 335 0345

MULTITECH®
CREATE • CONNECT • COMMUNICATE

MultiTech Conduit® IP67 Base Station

IP67 Conduit for Outdoor LoRa® Deployments
EU868 for Europe

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

- 27 dBm support for European region
- Certified for Europe 868 MHz ISM bands
- ISM band scanning for optimum LoRa performance
- Listen Before Talk operating protocol
- GNSS for location coordinate information

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 is a new embedded software offering, building on its popular application enablement platform, to deliver programmability, network flexibility, enhanced security and manageability for scalable Industrial Internet of Things (IIoT) solutions.

mPower is the unification and evolution of well-established MultiTech smart router and gateway firmware platforms. In addition to ongoing support of the current feature-sets, gateway customers can enjoy the additional security features currently available on the MultiConnect® rCell 100 Series.

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.

In response to evolving customer security requirements, mPower incorporates a host of new security features including signed firmware validation, enhanced firewall and VPN settings, secure authentication and more.

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

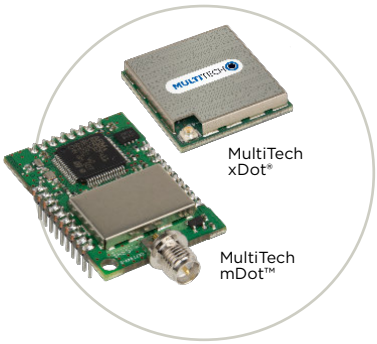
Easily Deploy and Manage Assets Via DeviceHQ®

MultiTech DeviceHQ is the M2M industry's first IoT online application store to enable customers to easily deploy and scale applications to their connected devices. Drag-and-drop tools easily allow customers to create and manage applications for in-field assets. The DeviceHQ application store gives your business the power to innovate operations management and create value-added services.

CONNECTING THE "THINGS"

MultiTech mDot™ & xDot®

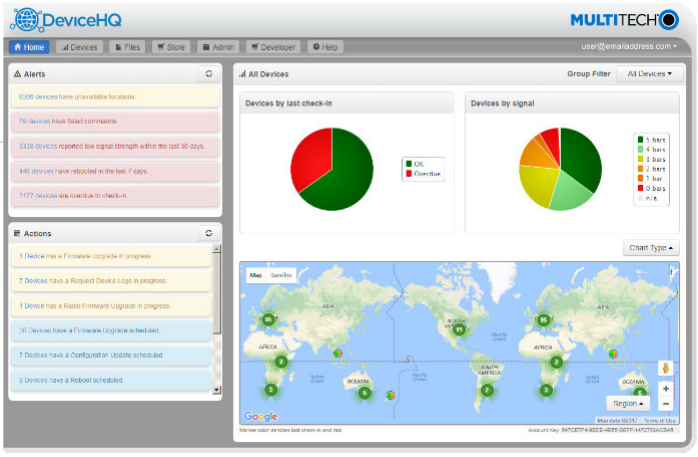
MultiTech mDot and xDot are secure, regulatory-certified, Arm® Mbed™ programmable, low-power RF modules, providing long-range, low bit rate IoT data connectivity to sensors and actuators.



The mDot and xDot are LoRaWAN compliant, providing bi-directional data communication up to 10 miles line-of-sight and 2-3 miles in buildings, using the global sub-GHz ISM radio bands in North America, Europe, and the APAC regions.

The mDot was the first Arm Mbed platform listed on mbed.org that was deployment ready. The mDot supports applications written and compiled in the mbed online environment using developer friendly libraries. Decision making and control can be done at the edge, reducing the need to optimize RF performance and implement complex IoT middleware.

mDots and xDots bring intelligence, reduced complexity and a lower overall bill of material to the edge of the network while supporting a variety of interfaces to connect just about any battery-powered "thing".



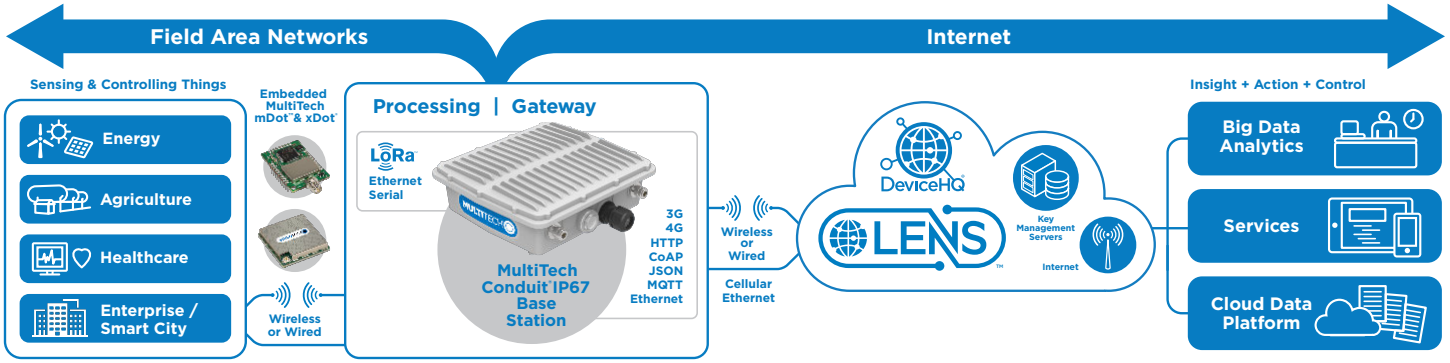
Benefits

- "Low Touch" asset deployment reduces costs, complexity and time
- Easily scales to your network needs
- Browse and download a wide variety of custom applications tailored to your business needs
- Reduce truck-rolls using remote performance management and asset updates

SPECIFICATIONS

Models	MTCDTIP-L4E1	MTCDTIP-868
Mobile Network Operator	European Network Operators	non-Cellular
Cellular Performance	4G - LTE Category 4	
Cellular Fallback	3G - HSPA+, 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)	
Packet Data (LTE FDD)	Up to 150 Mbps peak downlink Up to 50 Mbps peak uplink	
Input Voltage	Ethernet Input Power: 37 - 57 VDC. 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, user-programmable), L1 (user-defined), L2: (user-defined)	
LoRa Specifications		
LoRa Frequency Band	868 MHz	
LoRa Channel Plan	EU868	
Channel Capacity	8-channels (half-duplex)	
LoRa Power Output	27 dBm maximum output power before 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: female SMA / LoRa: N Male / GPS: N-Plug	
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	EN 55023 Class B | 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 Approvals	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	

* SIM, LEDs, and USB port accessible under IP67-rated bottom cap cover



IP67 BASE STATION STANDARD MOUNTING OPTIONS

Mounting Options
(optional accessories shown)

ORDERING INFORMATION

MultiTech Conduit® IP67 Base Station

Model	Description	Region
MTCDTIP-L4E1-267A-868	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 868 MHz, w/ GNSS+Wi-Fi/BT and Accessory Kit (Europe) - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Europe
MTCDTIP-L4E1-266A-868	LTE Cat 4 mPower Conduit IP67 Base Station 8-channel, 868 MHz, w/ GNSS and Accessory Kit (Europe) - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 2 cellular antennas, 1 GNSS antenna	Europe
MTCDTIP-267A-868	Ethernet only mPower Conduit IP67 Base Station 8-channel, 868 MHz, w/ GNSS+Wi-Fi/BT and Accessory Kit (Europe) - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna, 1 Wi-Fi/BT antenna	Europe
MTCDTIP-266A-868	Ethernet only mPower Conduit IP67 Base Station 8-channel, 868 MHz, w/ GNSS and Accessory Kit (Europe) - Accessory Kit: Mounting bracket kit, 1 LoRa antenna, 1 GNSS antenna	Europe

RECOMMENDED ACCESSORIES

MultiTech mDot™

Model	Description	Region
MTDOT-868-X1-SMA	868 MHz X1 LoRa SMA	Euro
MTDOT-868-X1P-SMA	868 MHz X1 LoRa SMA w/Programming Header	Euro
MTDOT-868-X1-UFL	868 MHz X1 LoRa UFL	Euro
MTDOT-868-M1-UFL	868 MHz SMT LoRa UFL	Euro
MTDOT-868-M1-TRC	868 MHz SMT LoRa RF Pad	Euro

MultiTech xDot®

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

Developer Kit & Accessories

Model	Description	Region
PS-56V-POE-EU-1	Single Port 30W Power over Ethernet Transformer with European Power Cord (1 Pack)	Europe
PS-56V-POE-EU-5	Single Port 30W Power over Ethernet Transformer with European Power Cord (5 Pack)	Europe
PS-56V-POE-GB-1	Single Port 30W Power over Ethernet Transformer with UK Power Cord (1 Pack)	Europe
PS-56V-POE-GB-5	Single Port 30W Power over Ethernet Transformer with UK Power Cord (5 Pack)	Europe
MTKIT-IP67-MF	IP67 Accessory Kit w/Mounting Bracket, 5' Coax Cable N Type, Male/Female Connectors & 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.

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

2020-02 • 86002215 • © 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.

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

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®