Chipsmall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

MULTITECH

CREATE • CONNECT • COMMUNICATE

MultiConnect® Conduit™ IP67 Base Station

IP67 Conduit for Outdoor LoRa® Deployments

LoRa Alliance™

MultiConnect® 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. Leveraging the MultiConnect Conduit, this solution can support thousands of LoRaWAN certified end nodes, including the MultiConnect® mDot™*. 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.

Bundled for easy deployment, the solution includes a MultiConnect Conduit with a LoRa MultiConnect® mCard™, IP67 enclosure, LoRa antenna to improve outdoor range and provides a choice of cellular 3G, 4G-LTE or Ethernet backhaul options. 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
- Low-cost, high quality support for outdoor IoT applications

FEATURES

- ISM band scanning for optimum LoRa performance
- Listen Before Talk LoRa operating protocol
- GNSS for location coordinate information
- 27 dBm support for European region
- Lightning arrestor and grounding mechanism for protection against storm damage
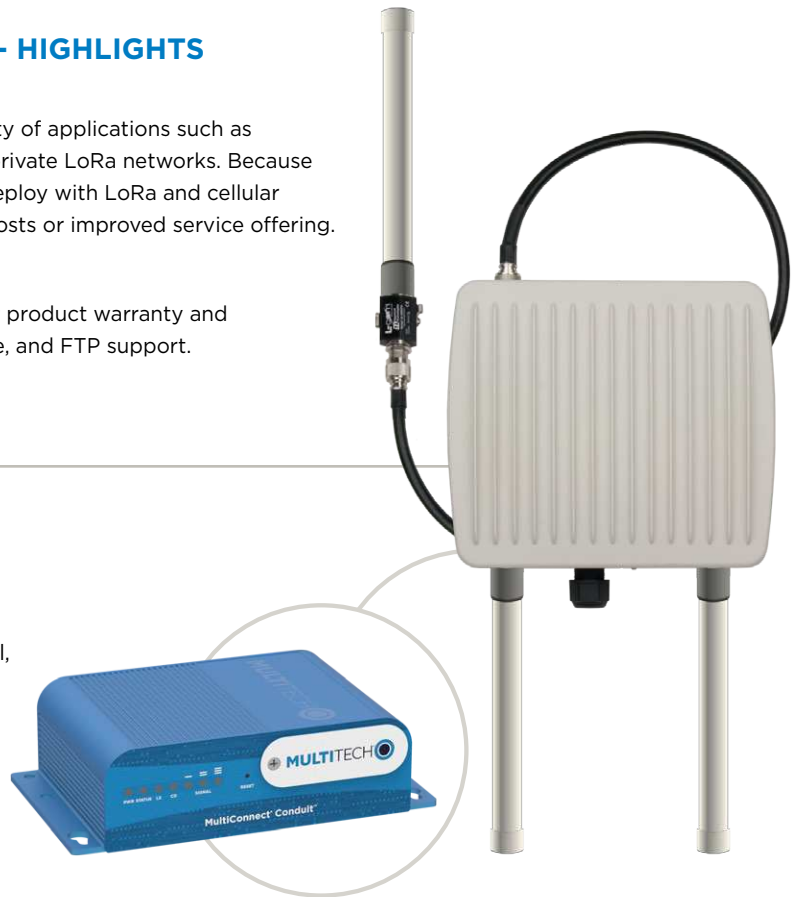- Certified for Europe 868 MHz, North American and Australian 915 MHz ISM bands

www.multitech.com/IP67

IP67 BASE STATION POWERED BY CONDUIT - HIGHLIGHTS

Applications

The MultiConnect Conduit IP67 Base Station is used in a wide variety of applications such as energy, agriculture and smart cities and supports both public and private LoRa networks. Because it is certified and carrier approved, customers are able to quickly deploy with LoRa and cellular connectivity to realize new revenue streams, reduced operational costs or improved service offering.

Comprehensive Service and Support

The MultiTech commitment to service means we provide a two year product warranty and service that includes free on-line technical support, 24 hour website, and FTP support.

MULTICONNECT CONDUIT HIGHLIGHTS

Application Development Tailored to You

MultiConnect Conduit provides both the IBM Node-RED graphical, drag-and-drop interface and mLinux development environments, offering IT professionals, integrators and developers alike, programming choice and capability to utilize the distributed intelligence capabilities of the Conduit to provide analytics on incoming data and provide more actionable outgoing data.

For the Advanced Developer – Open mLinux Development Environment

With a completely open Linux development environment, our mLinux distribution is based on the Open Embedded/Yocto project; providing hundreds of open source packages and extensive language support.

This development path is recommended for those wanting to port existing applications, who have strong language preferences, or who need complete firmware control.
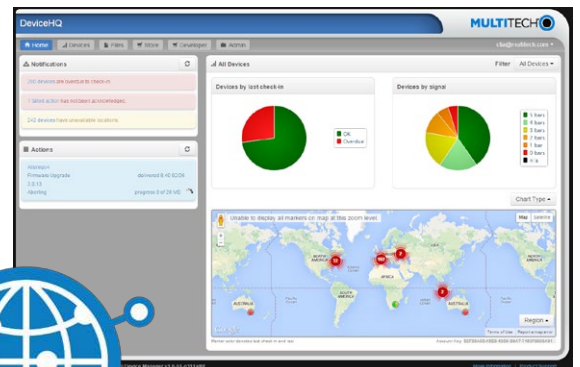
The mLinux Distribution Includes:

- Operating System: Linux 3.12 Kernel, Yocto 1.6
- Language Support: Java, Ruby, Perl, Python, C/C++, PHP, C# and JavaScript
- Packages: SQLite (Database), Ligttpd (Web Server), BusyBox (Core Utilities)

Fast and Intuitive Programming with Node.js and Node-RED Technologies

Applications can be simply created and deployed by the click of a button based upon IBM's Node-RED visual development tool. Incredibly user-friendly, Node-RED is an intuitive graphical programming tool ideal for rapid prototyping, designed for IT professionals to optimize and scale the edge behavior of their IoT network.

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.
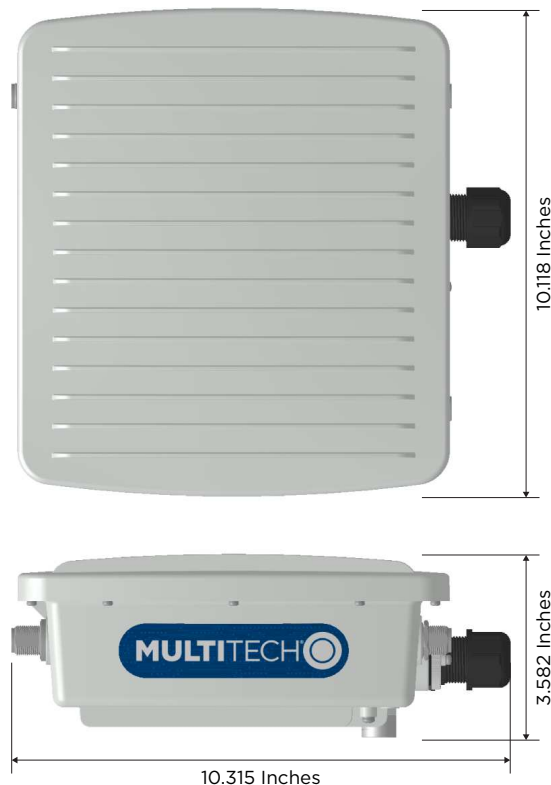
Benefits

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

IP67 BASE STATION SPECIFICATIONS

Region	Europe	North America
Communication	LoRaWAN 1.0 and 1.0.1 Compliant	
Antenna Connectors	"N" type	RJ-45 for POE
Physical Dimensions	10.315" x 3.582" x 10.118" (262 mm x 91 mm x 257 mm)	
Power		
Max Transmitter Power Output (TPO)	27 dBm	26 dBm
External Lora Antenna	3.0 dB additional gain	
External H5 or LTE Antenna	2.15 dB additional gain	
PoE Injector Input Power (outside IP67 enclosure)	• Uses a standard IEC320 power connection • AC Input Voltage: 90 to 264 Vac • AC Frequency: 47 to 63 Hz	
PoE Splitter (inside IP67 enclosure)	• Input power 48VDC over Ethernet • Output 12VDC @2.1A	
Environmental		
Operating Temperature	-30° to +65° C	
Storage Temperature	-40° to +85° C	
Certifications		
EMC Compliance	US: FCC Part 15 Class B. EU: EN 55022 Class B, EN 55024. Canada: ICES-003	
Radio Compliance	FCC 15.247, IC RSS-210, EU EN 300 220	
Safety	UL / cUL 60950-1 2nd Ed., UL / cUL 60950-22, IEC 60950-1 2nd Ed. + A2 , IEC 60950-22, RoHS compliant	

Actual performance speeds may be affected by attributes such as distance from gateway, data loads, packet sizes, etc.
For more information on MultiConnect Conduit, please refer to the MultiConnect Conduit datasheet.

10.118 Inches

3.582 Inches

10.315 Inches

MULTICONNECT CONDUIT SOFTWARE SPECIFICATIONS

mLinux

Open source embedded Linux distro based on the Yocto Project

Tool chain for creating custom images

LoRa network server & packet forwarder

WAN connection via Ethernet or cellular

Cellular PPP, DHCP client & server

Firewall configuration via iptables

MTAC-LORA

Full root console access via SSH and serial debug port

Out of the box support for C, C#, C++, Java, Perl, Python, Javascript, Node.js, Ruby

opkg package manager with limited package feed

Basic router functionality built-in with Linux

Five configurable LEDs

Software configurable USB device port

Lighttpd web server

AEP

Enhanced closed source embedded Linux platform

LoRa network server & packet forwarder

WAN Connection

Cellular PPP, Dynamic DNS, DHCP Server/Client

WAN connection via Ethernet or cellular

LAN/WAN Security

Secure firewall with NAT and port forwarding

Static routing

Node-RED integration

Built-in Node-RED application development environment

Node modules for MTAC-LORA

Language Support

C, C++, Python, Javascript, node.js, bash

Router/Modem management

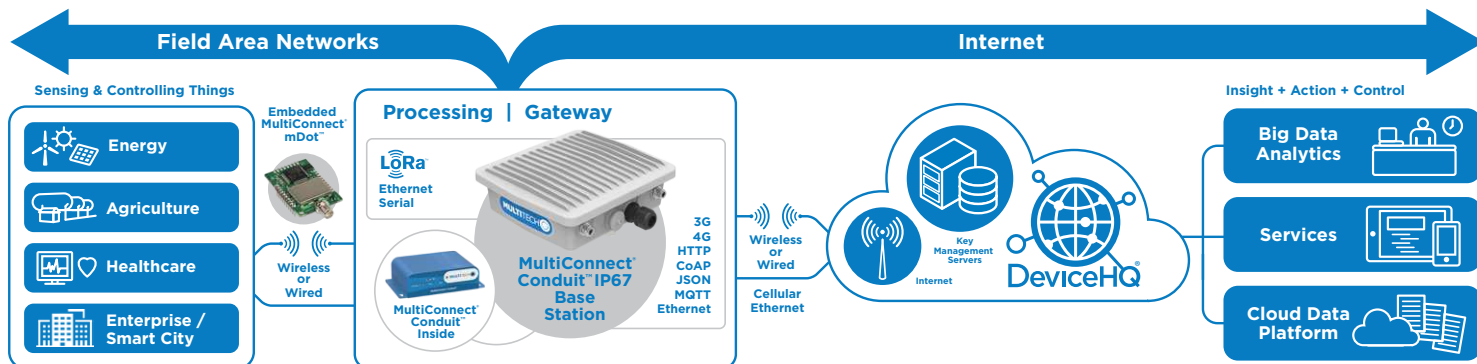Graphical web interface for configuration and management

Remote Access

Configuration backup & restore

Easy firmware upgrade through web interface

Seamless integration with DeviceHQ, MultiTech's device management platform

System and network statistics

Field Area Networks | **Internet**

Sensing & Controlling Things | **Insight + Action + Control**

Energy

Agriculture

Healthcare

Enterprise / Smart City

Embedded MultiConnect® mDot™

Wireless or Wired

Processing | Gateway

LoRa
Ethernet
Serial

MultiConnect® Conduit™ IP67 Base Station

MultiConnect® Conduit™ Inside

3G
4G
HTTP
CoAP
JSON
MQTT
Ethernet

Wireless or Wired

Cellular Ethernet

Key Management Servers

Internet

DeviceHQ®

Big Data Analytics

Services

Cloud Data Platform

WHAT'S INCLUDED WITH YOUR IP67 BASE STATION AND ACCESSORY KIT?

MultiConnect Conduit IP67 Base Station

The IP67 Base Station includes the following:

• 1 - MultiTech Conduit
• 1 - MTAC-LORA mCard inserted into Conduit
• 1 - Grounding screw
• Internal cable connectors
• Installation guide for setting up IP67 chassis and inserting SIM card
• 1 - Lightning arrestor
• 1 - Mounting Kit (can mount to pole, wall, tower)
• External Connector Cables
• 1 - LoRa IP67-rated antenna
• 2 - Cellular antennas
   (Note: Ethernet only does not include cellular antennas)
• Installation guide for installing accessories

ORDERING INFORMATION - MULTICONNECT® CONDUIT™ IP67 BASE STATION

Model	Description	Region
MTCDTIP-220L-868-OP	Ethernet mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-220A-868-OP	Ethernet Application Enablement Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-220L-915-OP	Ethernet mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	NAM
MTCDTIP-220A-915-OP	Ethernet Application Enablement Conduit IP67 Base Station w/Accessory Kit	NAM
MTCDTIP-H5-220L-868-OP	HSPA+ mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-H5-220A-868-OP	HSPA+ Application Enablement Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-H5-220L-915-OP	HSPA+ mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	NAM
MTCDTIP-H5-220A-915-OP	HSPA+ Application Enablement Conduit IP67 Base Station w/Accessory Kit	NAM
MTCDTIP-LEU1-220L-868-OP	LTE mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-LEU1-220A-868-OP	LTE Application Enablement Conduit IP67 Base Station w/Accessory Kit	Euro
MTCDTIP-LEU1-220L-915-OP	LTE mLinux Programmable Conduit IP67 Base Station w/Accessory Kit	Australia
MTCDTIP-LEU1-220A-915-OP	LTE Application Enablement Conduit IP67 Base Station w/Accessory Kit	Australia
MTCDTIP-LAT1-220L-915-OP	LTE mLinux Programmable Conduit IP67 Base Station w/Accessory Kit (AT&T)	NAM
MTCDTIP-LAT1-220A-915-OP	LTE Application Enablement Conduit IP67 Base Station w/Accessory Kit (AT&T)	NAM
MTCDTIP-LVW2-220L-915-OP	LTE mLinux Programmable Conduit IP67 Base Station w/Accessory Kit (Verizon)	NAM
MTCDTIP-LVW2-220A-915-OP	LTE Application Enablement Conduit IP67 Base Station w/Accessory Kit (Verizon)	NAM

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

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

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