

# MultiConnect<sup>®</sup> mDot<sup>™</sup> Box

Ideal for LoRa<sup>®</sup> Site Surveys and  
Proof of Concept Development



**The MultiConnect<sup>®</sup> mDot<sup>™</sup> Box** is a portable, handheld LoRa<sup>®</sup> end-point device that simplifies and speeds up proof of concept development and is ideal for site surveys. Designed to assist OEMs & Enterprises quickly determine if LoRa is the right technology to solve key industrial IoT issues: how to effectively connect to, and manage, thousands of assets and sensors in the field to meet the cost, performance and strategic needs of the business. With the mDot Box, users can quickly obtain and evaluate data to see how LoRa technology performs at any given location or in their unique IoT application. Very easy to use, the mDot Box enables users to make data driven decisions about the fit of LoRa for their use cases without the need for heavy configuration or embedded design skills.

The mDot Box features the MultiConnect<sup>®</sup> mDot<sup>™</sup>, a low cost programmable LoRaWAN<sup>™</sup> ready module in a handheld case, battery operated with an LCD screen for displaying menu and device navigation information as well as network, test mode, GPS and sensor status data. Two push button controls are also included providing menu navigation functions and two LEDs for displaying network and GPS status. The mDot Box also has several built in sensors including temperature, ambient light, pressure, electrical current and a 3-Axis accelerometer. It comes standard with GPS to enable site survey and location-based proof of concept testing. This versatile device can be used purely as a communications device or programmed with a custom application using the integrated ARM<sup>®</sup> mbed Enabled<sup>™</sup> programmable MultiConnect mDot. The mDot Box was developed to work with any LoRaWAN compliant gateway, including MultiTech's MultiConnect<sup>®</sup> Conduit<sup>™</sup>, the industry's most configurable, manageable, and scalable communications gateway.



## BENEFITS

- Quickly and easily perform LoRa site surveys with the mobile mDot Box
- Measure LoRa distance and building penetration performance for line of sight or urban/obstructed use cases
- User friendly LoRa evaluation tool – no heavy configuration or embedded design skills needed
- View LoRa site survey data your way – in the Cloud, on the gateway or export directly to your laptop

## FEATURES

- LCD screen displays menu options, test mode data as well as sensor data
- GPS enabled for highly accurate location-based site surveys
- Flexibility to operate with any LoRaWAN 1.0.1 compliant gateway
- Supports the European 868 MHz and North America/AU 915 MHz ISM bands

# MULTICONNECT® MDOT™ BOX

With the click of a button, the mDot Box provides a wealth of valuable information such as location, spreading factor, throughput, Received Signal Strength Indicator (RSSI), time, date activity and power level usage at the very locations companies are planning to deploy LoRa technology. Viewing and analyzing site survey data is easy thanks to the versatility of the mDot Box which provides multiple ways of exporting data, including to the customer's preferred Cloud platform.

Extremely easy to use, customize and manage, the mDot Box makes evaluating LoRa technology for IoT applications as easy as clicking a button.

Operational Mode	Functional Description
Site Survey Single	In Site Survey Single Mode, the user can test connectivity with the gateway at different data rate and power combinations. Surveys are assigned a survey index so they can be referenced later. The result of each survey, including the survey index, is saved in the Survey Data File.
Site Survey Sweep	In Site Survey Sweep Mode, connectivity with the gateway is tested over a range of power levels and data rates. Sweeps are assigned a sweep index so they can be referenced later. The result of each sweep, including the sweep index and the results of every survey in the sweep, is saved in the Survey Data File. The user can configure the minimum and maximum data rates and power levels to use for sweeps using Configuration Mode.
Demo	LoRa Demo Mode demonstrates a typical use case for a MultiConnect mDot. Sensor data is gathered and updated on the screen in real time. The sensor data is also sent to the gateway periodically at a user defined interval or triggered on the push of a button, depending on the mode of operation selected.

## PACKAGE CONTENTS

- MTDOT-BOX LoRa Evaluation and Site Survey Box (868 or 915 MHz)
- Micro Dev Kit (MTMDK-ST-MDOT)
- External LoRa Antenna
- Programming Cable
- Quick Start Guide
- 9 Volt Battery
- Quick Start Guide

## ORDERING INFORMATION

### North American Model

Model	Description	Region
MTDOT-BOX-G-915-B	LoRa Evaluation and Site Survey Box w/GPS – 915 MHz	NAM

### European Model

Model	Description	Region
MTDOT-BOX-G-868-B	LoRa Evaluation and Site Survey Box w/GPS – 868 MHz	EU/GB

### Australian Model

Model	Description	Region
MTDOT-BOX-G-915-AU-B	LoRa Evaluation and Site Survey Box w/GPS – AU915 MHz	AU

### Related Products

Model	Description	Region
MTDOT-EVB-915	LoRa Evaluation and Development Board - 915 MHz	NAM
MTDOT-EVB-868	LoRa Evaluation and Development Board - 868 MHz	EU/GB
MTDOT-EVB-915-AU	LoRa Evaluation and Development Board - AU915 MHz	AU

Go to [www.multitech.com](http://www.multitech.com) for detailed product model numbers.

See the MultiConnect mDot home page for addition information and product specifications.

## 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](http://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](mailto:sales@multitech.com)  
[www.multitech.com](http://www.multitech.com)

## EMEA HEADQUARTERS

Multi-Tech Systems (EMEA)  
United Kingdom  
Tel: +(44) 118 959 7774  
Email: [sales@multitech.co.uk](mailto:sales@multitech.co.uk)

Produced in the U.S. of U.S. and non-U.S. components. Features and specifications are subject to change without notice.

Trademarks and Registered Trademarks: MultiTech and the MultiTech logo, MultiConnect, mDot, Conduit: Multi-Tech Systems, Inc. The LoRa name and associated logo are trademarks of Semtech Corporation or its subsidiaries. All other products and technologies are the trademarks or registered trademarks of their respective holders.

2016-11 • 86002178 • © 2016 Multi-Tech Systems, Inc. All rights reserved.

