#### MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit

- **Product Documentation** 
  - xDot Developer Guide: Developer information, including specifications, pin information, regulatory content, and developer board schematics. Go to: http://www.multitech.net/developer/multiconnect-xdot
  - **DOT Series AT Command Reference:** Includes details on the AT commands available for xDots. Go to: http://www.multitech.net/developer/multiconnect-xdot
  - MultiTech Developer Site: Application notes, LoRa information, and information on using xDots with MultiConnect Conduit (MTCDT) gateway. Go to: www.multitech.net
  - Processor Datasheet: ST Micro ARM® Cortex®-M3 processor (STM32L151CCU6) datasheet is available on the ST website: http://www.st.com/

# **Safety and Regulatory Content**

For safety and regulatory content, refer to the mDot Developer Guide.

# Using the mbed Platform

The mbed platform provides free software libraries, hardware designs and online tools for professional rapid prototyping of products based on ARM microcontrollers.

The platform includes a standards-based C/C++ SDK, a microcontroller HDK and supported development boards, an online compiler and online developer collaboration tools. The MultiTech xDot mbed page includes libraries and information on using xDot with the mbed platform.

Explore mbed: http://developer.mbed.org/explore/ mbed

Getting Started: http://developer.mbed.org/getting-started/ mbed

Handbook: http://developer.mbed.org/handbook/Homepage

xDot mbed Documentation: https://developer.mbed.org/platforms/MTSxDot-L151CC/

MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit

MultiTech Systems

# MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit Quick Start

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## MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit MTMDK-XDOT Quick Start



Quick Start

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**Developer Board** 

### MultiTech Systems

# Welcome

This Quick Start includes information on the MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit.

The MultiConnect xDot (MTXDOT) is a LoRaWAN<sup>™</sup>, low-power RF device, capable of two way communication over long distances, deep into buildings, or within noisy environments using the unlicensed ISM bands in North America, Europe and worldwide. The xDot is a compact surfacemount device with an mbed enabled processor and enhanced security. The xDot features an integrated ARM<sup>®</sup> Cortex<sup>®</sup>-M3 processor and mbed<sup>™</sup> compatible software library for developers to control, monitor and bring edge intelligence to their Internet of Things (IoT) applications.

The xDot developer kit comes with an xDot already mounted on the developer board. Simply plug the developer kit into a USB port on your computer to test, program, and evaluate your application.

# **Developer Kit Package Contents**

Your Developer Kit (MTMDK-NX-XDOT) includes the following:

Developer Board	1 - xDot Developer Board with xDot						
Customer Notices	Quick Start						

## **Firmware Updates**

Before starting your project development, make sure you have the latest firmware for the Developer Kit and xDot. Go to the xDot mbed page for firmware. https://developer.mbed.org/platforms/MTS-xDot-L151CC/

## **Getting Started**

Getting started depends on what you want to do. By default, xDot ships with firmware that supports AT Commands that use the serial I/O. For AT Commands, refer to the separate MultiConnect Dots AT Command Reference Guide.

To send commands to the xDot:

Plug the developer board into a USB port.

MultiConnect<sup>®</sup> xDot<sup>™</sup> Developer Kit

- Open communications software, such as TeraTerm, Putty, 2 or Minicom.
- Set the following: 3.
  - Baud rate = 115.200
  - Data bits = 8
  - Parity = N
  - Stop bits = 1
  - Flow control = Off

Two serial interfaces are available through the USB interface, one is used to send AT commands to the xDot and the other is for debug messages. Refer to Specifications and Pin Information in the MultiConnect xDot Developer Guide for information on which pins are available out of the box.

## **xDot Pinout**

	ANT 2	GND	GND	GND	GND	GND	GND	GND	GND	GND	ANT 1		36	
		49	50 53	GN GN	ID	51	GN	ID	52 55	48 GN GN	ID		UART_RT SWDIO SWCLK I2C0_SDA I2C0_SCL GPIO0	S
0				0					0				GPIO2	
	UART1_	UART1_	UARTO	UARTO	GND			GND			H GPIO3	0	24	
							UART1_TX UART1_TX UART1_TX UART0_TX CND GND GND GND CND CND CND CND CND CND CND CND CND C	UART1_TX UART1_TX UART1_TX UART0_TX UART0_TX UART0_RFUS B B B B B B B B B B B B B B B B B B B	UART1_TX UART1_TX UART0_TX UART0_TX UART0_TX BUND CAND RFU5 CAND CAND CAND CAND CAND CAND CAND CAND	UART1_TX UART1_TX UART1_TX UART0_TX GND GND RFU5 C GND C C C C C C C C C C C C C C C C C C C	RFUS RFUS RFUS RFUS RFUS RFUS RFUS RFUS	A B C C C C C C C C C C C C C C C C C C	UART1_TX UART1_TX UART1_TX UART1_TK GND GND GND GND GND GND GND GND C GND C GND C C C C C C C C C C C C C C C C C C C	GND GND GND GND GND GND GND GND



