



# Quick Start Guide

**TWRPI-BLE-DEMO**  
Tower Plug-In Bluetooth®  
Low Energy Demo



# Get to know the TWRPI-BLE-DEMO

KWIKSTIK-K40  
Circuit Board

LCD Screen on Back

Start  
(Touch  
Button)  
on Back

Kinetis K40 MCU

TWRPI-BLE-SS1  
(Collector)

Jumper  
for Current  
Consumption  
Measurement

Battery Board  
with CR2032  
Coin Cell

TWRPI-BLE-SS1  
(Sender)

Kinetis K10 MCU  
and EM Micro BLE  
Transceiver Inside

Reset Button

## I WKI-BLE-DEMO Features

- Contains two Bluetooth Low Energy (BLE) radio modules to evaluate performance and power consumption
- Radio modules are self contained and FCC/CE certified with integrated chip antenna
- Each radio module contains a Kinetis K10 MCU and BLE radio transceiver from EM Microelectronics
- BLE stack and profiles included from Stonestreet One, with easy communication to radio module from host with simple AT modem command set
- Modules are compact, measuring only 11.8 mm x 17.6 mm
- Kinetis KWIKSTIK included with a K40 MCU for host processor



# Step-by-Step Installation Instructions

## 1 Check the TWRPI- BLE-SS1 Modules

The demo consists of two TWRPI-BLE-SS1 modules. Both modules are pre-assembled. One module (collector) is plugged into the Kinetis KWIKSTIK and the other module (sender) is plugged into the RF-BAT board.

## 2 Insert the Battery

Insert the CR2032 coin cell into the battery slot of the sender on the RF-BAT board. The device will remain powered and will be transmitting until the jumper is removed.

**Note:** Please ensure that the coin cell battery voltage is at least 2.9 V.

## 3 Power the Board

To power up the collector board, plug the Kinetis KWIKSTIK board into a PC using the USB cable provided. Either of the micro USB ports on the Kinetis KWIKSTIK will work.

## 4 Confirm Pairing of the Boards

The LCD screen on the KWIKSTIK board will illuminate after it is powered from USB cable and will display a numeric value which is being transmitted from the sender representing a heart rate monitor.

## 5 Change the Reading

Turn the potentiometer knob on the sender to change the value of the heart rate and then observe the changes displayed on the LCD screen of the KWIKSTIK.

**Note:** If no device is found, press the start (touch button) to the left of the LCD to search for the device again.







Visit [freescale.com/BLE](http://freescale.com/BLE) for information on the TWRPI-BLE-DEMO module, including:

- Stonestreet One module user guide
- TWRPI-BLE-DEMO schematics
- Tower System fact sheet
- AT Modem commands for Stonestreet One BLE module
- Stonestreet One web link

## Support

Visit [freescale.com/support](http://freescale.com/support) for a list of phone numbers within your region.

## Warranty

Visit [freescale.com/warranty](http://freescale.com/warranty) for complete warranty information.

For more information, visit [freescale.com/Tower](http://freescale.com/Tower)

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