

Quick Start Guide

TWRPI-BLE-DEMO

Tower Plug-In Bluetooth®
Low Energy Demo



TOWER SYSTEM

Get to Know the TWRPI-BLE-DEMO

KWIKSTIK-K40
Circuit Board

LCD Screen on Back

Kinetis K40 MCU

TWRPI-BLE-SS1
(collector)

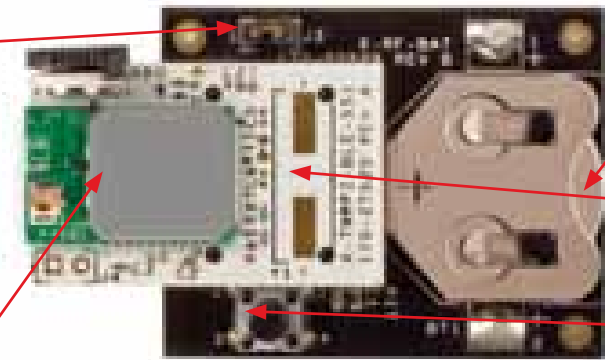
Jumper
for Current
Consumption
Measurement

Battery Board
with CR2032
Coin Cell

Kinetis K10 MCU
and EM Micro BLE
Transceiver Inside

TWRPI-BLE-SS1
(sender)

Reset Button



TWRPI-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 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.

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.

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Visit 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 for a list of phone numbers within your region.

Warranty

Visit freescale.com/warranty for complete warranty information.

For more information, visit freescale.com/Tower

Join the online Tower community at towergeeks.org

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