Thunderboard™ BG22 Kit

SLTB010A

Thunderboard BG22 is a small form-factor, optimized development platform for adding Bluetooth connectivity to battery-powered IoT products.

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Get Started with Thunderboard BG22

Learn More

Step by step on how to order the Thunderboard IoT development Kit and install the app.

Thunderboard BG22 Features

Small Form Factor Thunderboard

- EXP compatible breakouts

Target device

- EFR32BG22
  - Secure Bluetooth 5.2 SoCs for high-volume products
  - 76.8 MHz, ARM Cortex-M33 with 512 kB of flash and 32 kB RAM
  - Bluetooth 5.2 Radio with supported for direction finding and LE coded PHY
- 38.4 MHz HFXO crystal
- 32.768 kHz LFXO crystal
- 2.4 GHz matching network and chip antenna

On-board Board controller

- J-Link debugger
  - SWD physical layer
- Packet trace over UART/async protocol
- Virtual COM with hardware flow control

USB Micro-B connector for debug connection

User interface features:

- 1x button (with EM2 wake-up)
- 1x LED

Data storage / OTA support

- 8 Mbit SPI flash

Power save features

- Controllable and separate power domain(s) for sensors

Mobile app for Android and iOS

- View sensor data, control LEDs and detect button pushes
- iOS app implemented in swift
- Android app implemented in native code
- Source code available at GitHub

Sensors

- Relative humidity & temperature sensor: Si7021
- UV and ambient light sensor: Si1133
- Hall effect sensor: Si7210
- 6-axis IMU: Invensense ICM-20648

Mini Simplicity Debug Connector (SLSDA001A compatible) with access to:

- AEM
- PTI
- VCOM
- SWD

Thunderboard BG22 Resources

Thunderboard BG22 Kit User's Guide

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iOS App Source Code

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Android App Source Code

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