

SensorRF-GEVK

SensorRF-GEVK Evaluation Board User's Manual

SensorRF-GEVK IoT Development Platform: Getting Started Guide

Introduction

Thank you for purchasing the SensorRF-GEVK IoT Development Platform. SensorRF-GEVK enables exploration and development of applications using battery-free wireless sensors built around the Magnus[®]-S chip. The system includes:

- System Motherboard with LCD Touchscreen, BeagleBone Single-board Linux Computer, and Wireless Communication Board
- DC Power Supply and Cable
- Directional Antenna
- Coaxial Antenna Cable
- SD Card for System Restore
- USB Cable for Connecting Peripherals to the BeagleBone
- 5 Temperature-sensing Tags
- 5 Moisture-sensing Tags



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EVAL BOARD USER'S MANUAL

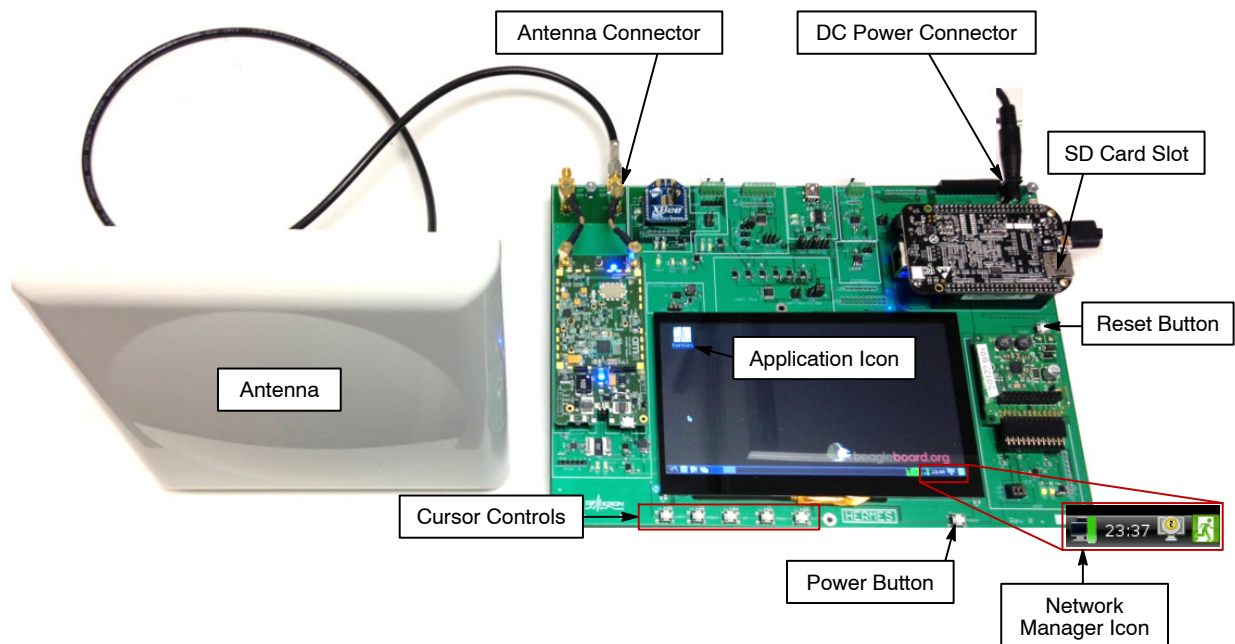


Figure 1. SensorRF-GEVK IoT Platform

SensorRF–GEVK

System Setup

Remove the SensorRF–GEVK motherboard from the cardboard shipping base by unscrewing the plastic fasteners. Screw the antenna cable to the connector on the motherboard (indicated in the figure above). Make sure the connection is snug but avoid overtightening. Use an 8 in-lb torque wrench if available. Hand-tighten the other end of the cable to the port on the back of the antenna. Avoid sharp bends in the antenna cable.

Turning SensorRF–GEVK On and Off

To start SensorRF–GEVK, simply connect the DC power plug (shown in the figure above). The system will start automatically. To turn SensorRF–GEVK off, press the Power button once and wait for the system to fully shut down before unplugging the power connector. If the system is turned off but still plugged in, it can be restarted by pressing the power button.

CAUTION: Do not unplug the power connector before shutting down to prevent damage to the system.

Running a Sensor Demonstration

Place a sensor tag about 50 cm from the antenna and aim the antenna at the tag; avoid placing metal objects between the two. After the system boots and the LCD touch screen displays the desktop, launch the SensorRF–GEVK Demonstration Software by tapping the icon in the upper left. Select a Temperature or Moisture demonstration at the main screen. Click Start to begin reading the sensor and plotting results.

For More Information

Full documentation and source code to the demonstration application can be found at www.onsemi.com

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