Freescale Semiconductor
Application Note

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13192 Developer's Starter Kit (13192DSK)

Quick Start Guide

1 Introduction

This document describes the procedures necessary to run the MC13192 Accelerometer Demonstration Program that is pre-programmed on the boards in the 13192DSK.

The Accelerometer Demonstration is programmed into flash from the factory and is optimized for low power consumption. The output power is set to minimum output power (-16.6 dBm typical) versus the nominal 0 dBm output power setting for 802.15.4 and Zigbee applications. The minimum output power setting (-16.6 dBm typcial) should not be used for range testing and verification. To test the effective range of the boards, use the Range Demonstration application which has the output power set to at least the nominal (0 dBm) output power setting. The Range Demonstration should be uploaded to the board's program flash memory and run from there.

Refer to AN3231 for more information on running the Range Demonstration application.

2 Board Setup

To setup both boards for operation, (transmit and receive) perform the steps shown in this section. Figure 1 shows the Sensor Application Reference Design (SARD) board layout.

2.1 Board One Setup (Receive)

1. Connect a SARD board to the PC serial port using a DB9 male/female serial cable included in the development kit.
2. Connect a 9V battery or the 5.5-9 V power supply to the power supply connector and set switch S105 to the "ON" position.
3. Press the Reset Button S106. Board One is now in receive mode.

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2.2 Board Two Setup (Transmit)

1. Connect a 9 V battery or the 5.5-9 V supply to the power supply connector and power on the board by setting switch S105 to the “ON” position.
2. While holding down S101, press and release the Reset Button S106 and release S101. LED D104 should be blinking. Board Two is now in transmit mode.

2.3 Verifying Operation

1. Verify that the boards are communicating by ensuring that LED D103 on the receive board (Board One) is blinking. If it is not, press the Reset Button S106 on Board One again.

3 Running the Software

1. Install BeeKit™ Wireless Connectivity Toolkit CD provided in the 13192DSK.
2. Run the Triax software from the Windows Start Menu > Programs > Freescale ZigBee > Test Tool > Triax.
3. Select the COM port to which the board is connected.
4. Select the Raw Data Demo from the General View group. The Triax application uses RF communication to transmit, receive and respond to various data from the accelerometer.
5. It is possible to run other demos by choosing them from the Triax main window. Refer to application note AN3230, *Accelerometer Demonstration Program Quick Start Guide*, for additional information.

NOTE

If using batteries as the power source and the accelerometer demonstration behavior becomes erratic, replace the batteries.

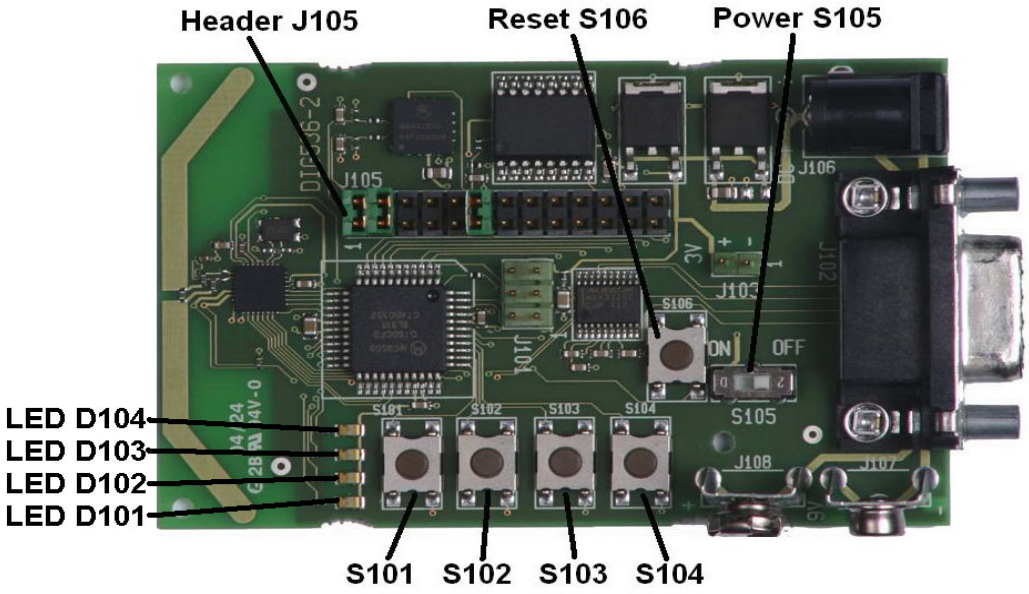

Figure 1. SARD Board Component Location

NOTES

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