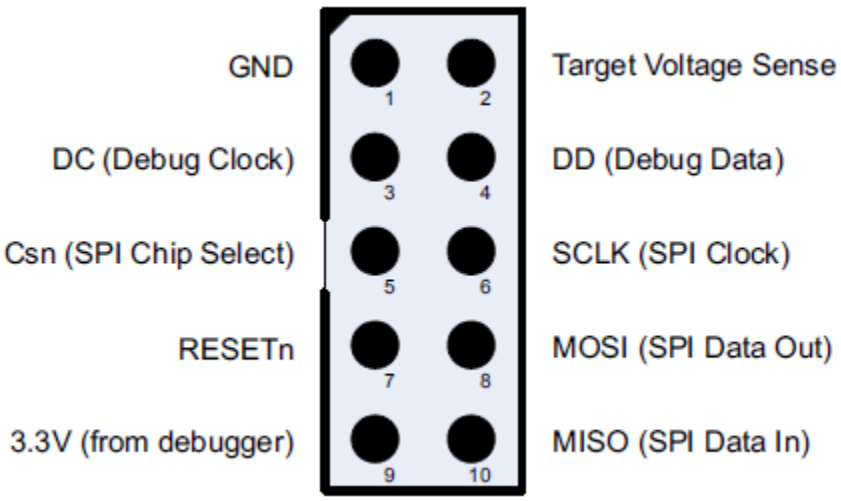
TIDA-00358 Quick Start Guide

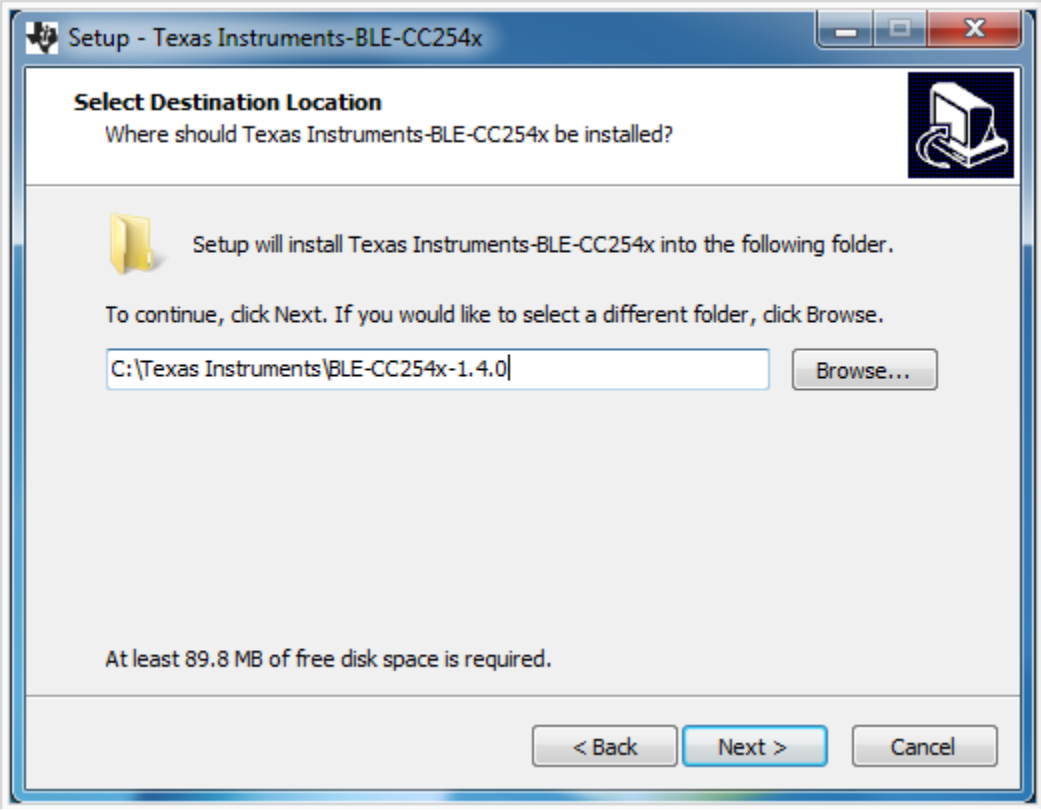
Getting Started: What's Needed

1. Hardware:
    a. CC Debugger (Debugging tool to load the firmware to CC2541)
    b. PC Board Supporting the Module Footprint including:
        i. A quiet 24mA, 3.3V DC power rail (2V min to 3.6V max)
        ii. Debug Header- Samtech FTSH-105-01-FDH or equivalent
    c. If a step down converter (buck) is required, an LDO such as the TPS71733 (Single Output LDO, 150 mA, Fixed (3.3V), High-PSRR, Low Quiescent Current, Low Noise) is suggested due to the minimal sleep currents that the CC2541-Q1 requires
2. Software and Tools:
    a. IAR Embedded Workbench for 8051
    b. BLE Stack and Tools 1.40
    c. BLE Software Developers Guide
    d. Device Monitor
    e. Smart RF Studio
    f. Smart RF Flash Programmer v1
    g. CC2541 BLE Software Developer's Guide
    h. TI BLE Multitool App for iPhone
3. Getting Started
    a. Connect pins VCC, DD, Reset_n, and GND on the board to the pins Target Voltage Sense, DD, DC, Resetn, and GND on the CC Debugger.

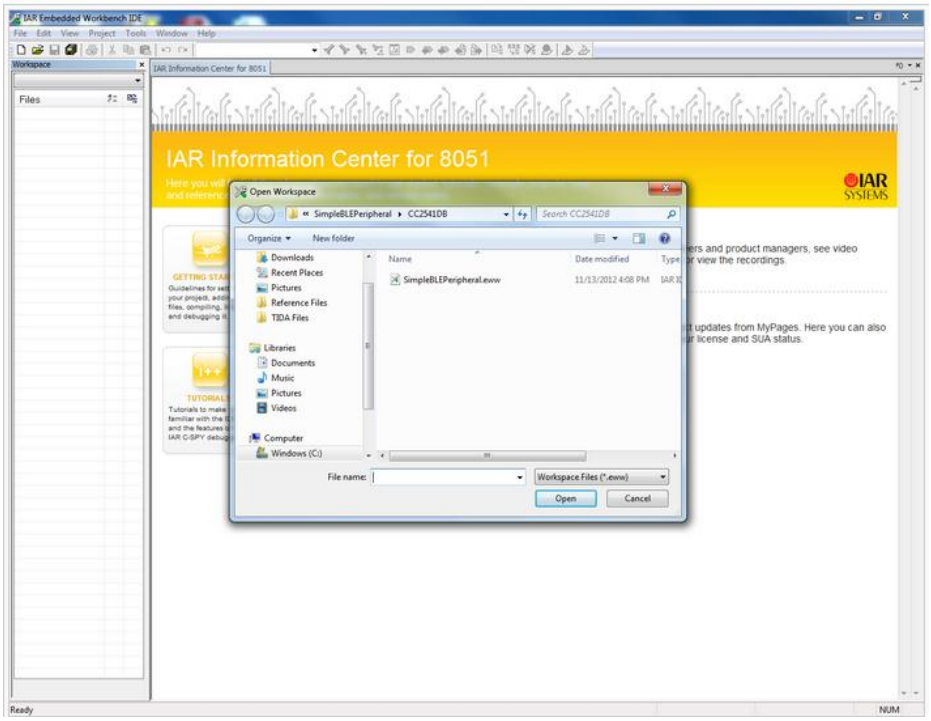


    b. The LED on the CC Debugger will turn green to indicate it is connected properly and functioning. If the LED remains red, recheck the connection to the board and reset the debugger by pressing the reset button.

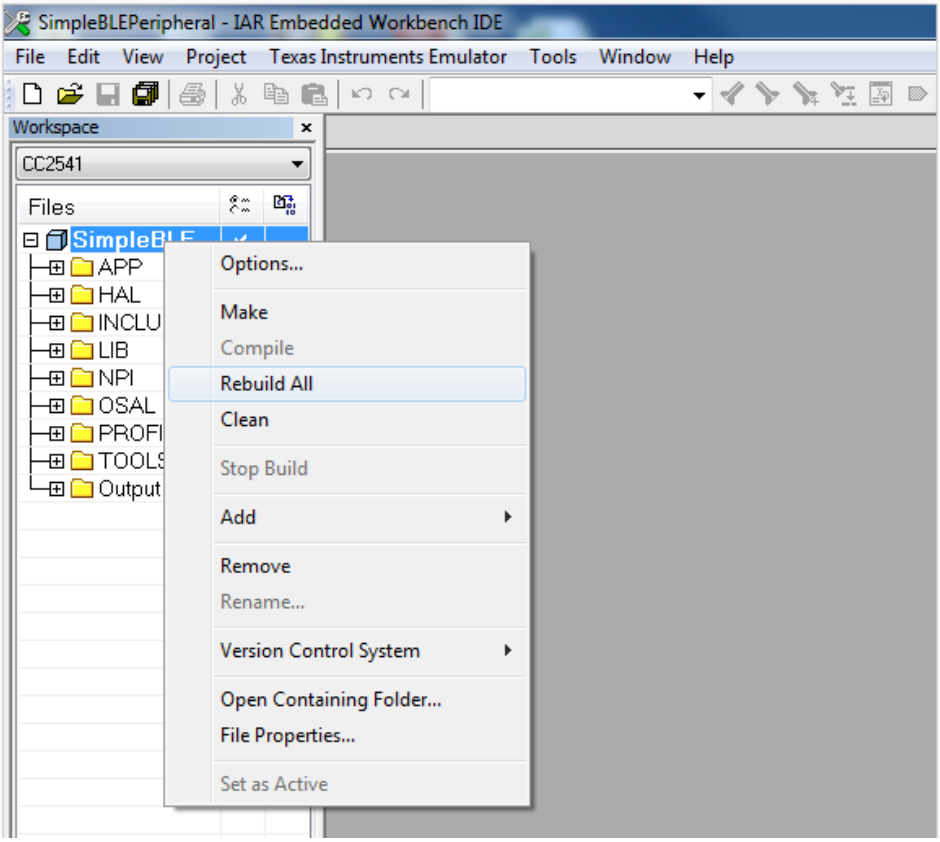
c. Installing the BLE stack with default directories will place project files for IAR in "C:/Texas Instruments\BLE-CC2541-1.4.0\Projects\ble\".



d. In IAR, go to File > Open > Workspace… and select SimpleBLEPeripheral.eww



e. Build the project for CC2541



Load the resulting Hex file into the CC2541. With power supplied to the board, the device should be visible under ‘AVAILABLE DEVICES” in the iPhone’s TI BLE Multitool app. Select the device to connect and begin displaying hardware information002E

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