

## CCxxxEMK INTERFACE WITH THE MSP430

This document has the required information necessary to run an example code to demonstrate the RF capabilities of the experimenter's board.

Note: Read the Experimenter's User's Guide and the FET User's Guide documents for more information.

### Requirements

Figure 1 shows the board with the associated jumpers and their configuration for proper functionality of the demonstration.

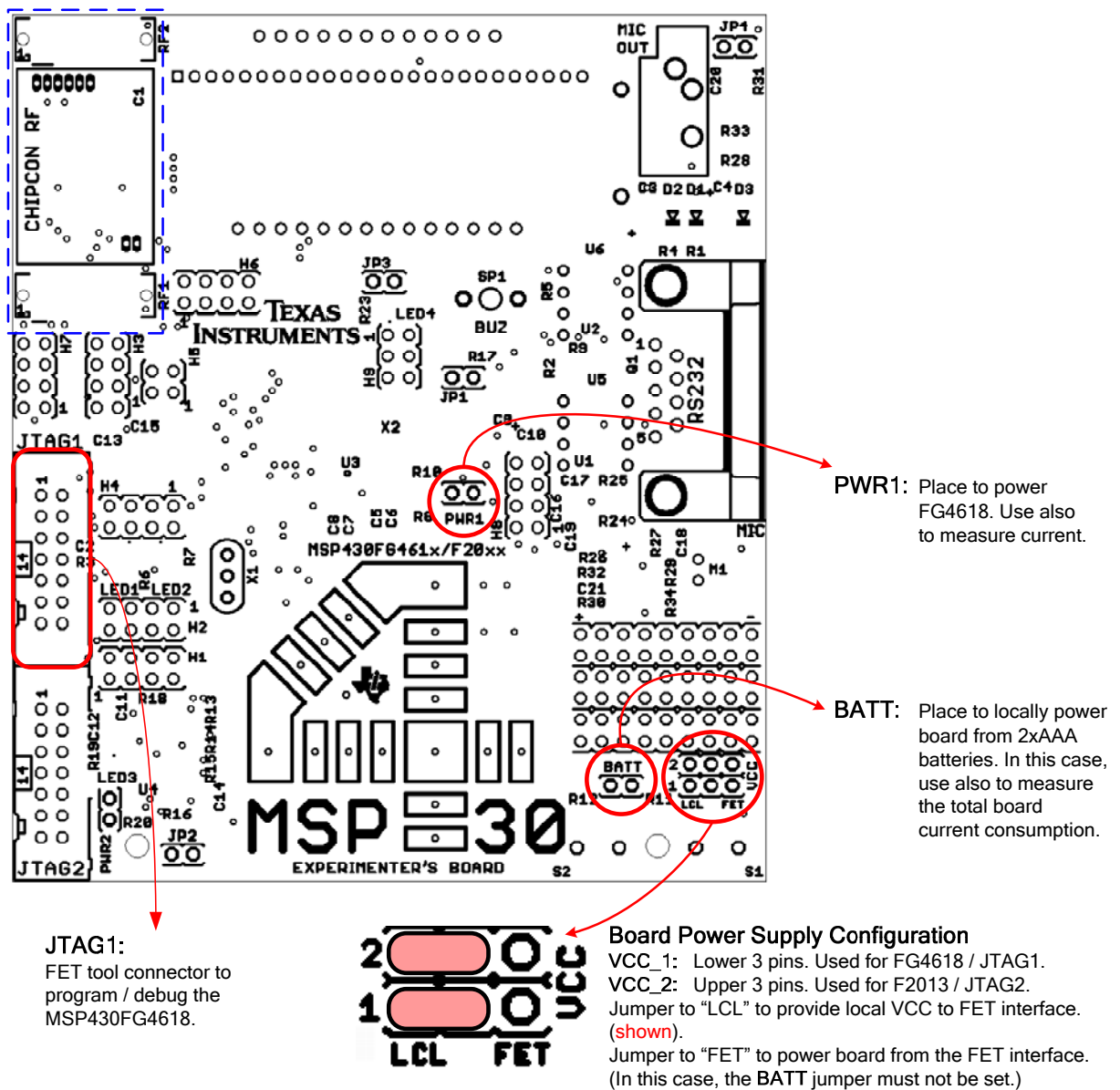


Figure 1: Board settings to demonstrate RF capabilities

## Associated code files

The code files associated with this demonstration is

- TI\_CC\_spi.h
- TI\_CC\_msp430.h
- TI\_CC\_hardware\_board.h
- TI\_CC\_CC1100-CC2500.h
- include.h
- hal\_uart.h
- CC1100-CC2500.h
- TI\_CC\_spi.c
- main.c
- hal\_uart.c
- cc1100-CC2500.c

## Steps to run the demonstration codes

This demonstration requires two experimenter's boards and two CCxxxxEMK boards with antennas. The exact steps are to be followed on each experimenter's board. It is assumed that the CCxxxxEMK boards have been placed as a daughter card on each experimenter's board. For stand alone operation the board has to be battery powered and hence the BATT jumper must be on the board.

1. On Board #1 connect JTAG header of USB FET to JTAG1 to debug the FG4618
2. Open IAR Embedded Workbench V 3.42.
3. Choose **Project→ Add Existing Project** from the drop down menu.
4. Select the project file the CCxxxxEMK\_Interface.ewp.
5. Confirm if the target is MSP430FG4618 and FET Debugger option is selected.
6. Build and load the project on the device by selecting **Project→ Debug**.
7. Come out of Debug mode by selecting **Debug→Stop Debugging**.
8. Disconnect JTAG header of USB FET from JTAG1.
9. Repeat steps 1 through 8 on Board #2.
10. Cycle power on each board individually to see LED 1 and LED 2 blink a few times. The boards are then ready for the demonstration.
11. Switch S1 and S2 on Board #1 (#2) control LED 2 and LED 1 on Board #2 (#1) respectively.
12. Switch operation toggles the state of the LED from ON→OFF or OFF→ON.
13. For proper functionality ensure the on-board batteries have the sufficient voltage required for the MSP430.

Note: This example is not configured for LOW POWER, remove BATT jumper to conserve power when not in use.