LCD DISPLAY ON THE EXPERIMENTER'S BOARD

This document has the required information necessary to run the example code that interfaces the MSP430FG4618 to the LCD.

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.

JP3: Place to allow LED4 operation (FG4618 – P5.1)

PWR1: Place to power FG4618. Use also to measure current.

BATT: Place to locally power board from 2xAAA batteries. In this case, use also to measure the total board current consumption.
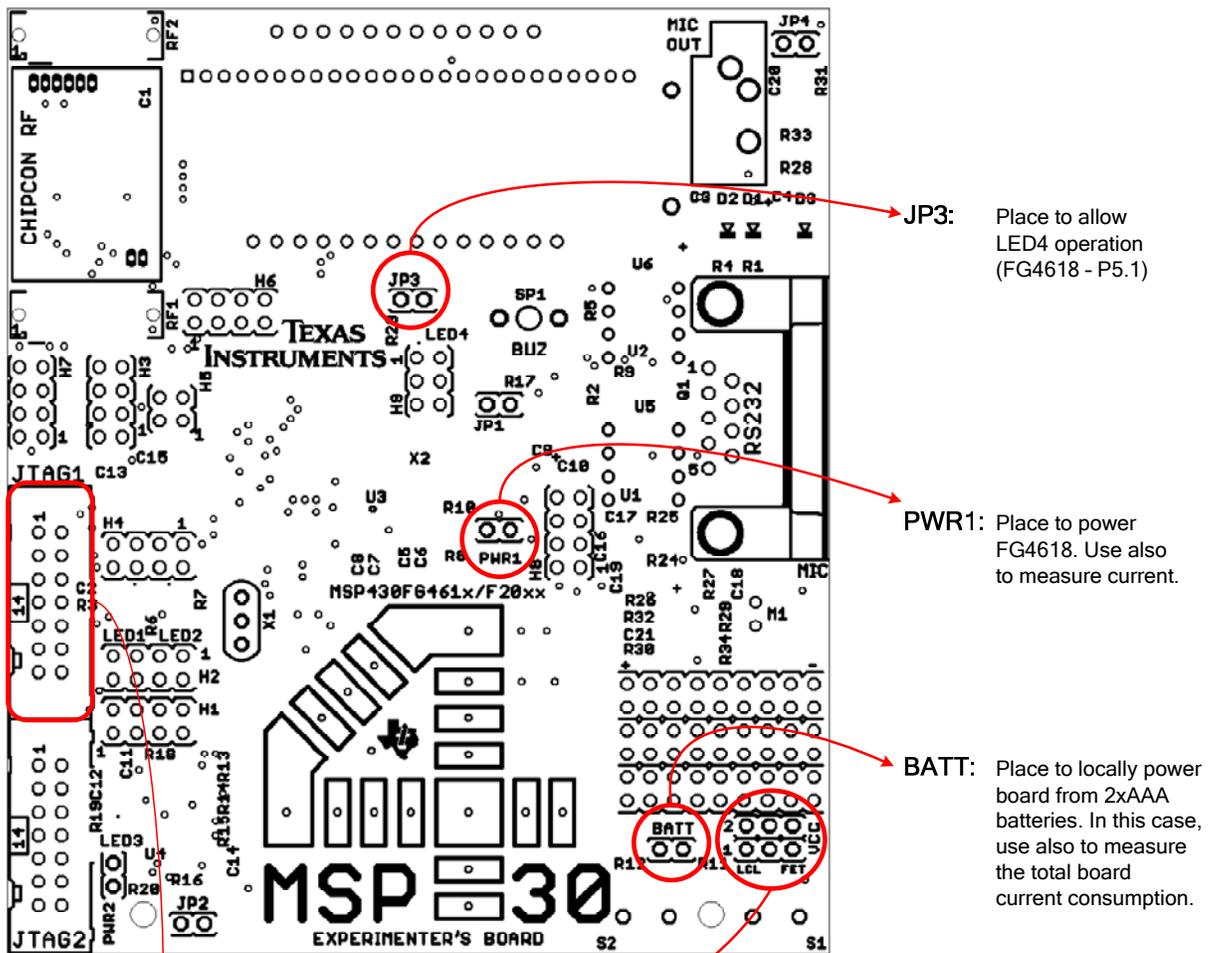
JTAG1: FET tool connector to program / debug the MSP430FG4618.
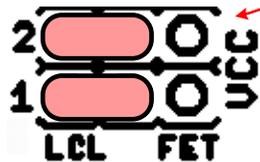
Board Power Supply Configuration
VCC_1: Lower 3 pins. Used for FG4618 / JTAG1.
VCC_2: Upper 3 pins. Used for F2013 / JTAG2.
Jumper to "LCL" to provide local VCC to FET interface. (shown).
Jumper to "FET" to power board from the FET interface. (In this case, the BATT jumper must not be set.)

Figure 1: Board settings to demonstrate LCD functionality

Associated code files

The code files associated with this demonstration is

- Board.c
- Board.h
- LCD.c
- LCD.h

Steps to run the demonstration codes

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 LCD_test.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. From the IAR Embedded Workbench window from the drop down menu select **Debug→ Go** to start operations on the FG4618.
8. This immediately blinks LED 1, LED 2 and LED 4 on the board.
9. The LCD also starts off displaying all the segments and then starts to randomly turn ON and OFF different segments.
10. The user can then modify the "main" function in the source file Board.c to enable/disable the LCD segments.