

MSP I2C Host with Battery Charger IC

Housekeeping

MSP430

GUI User Interface

I2C Host Control Panel

I2C Slave Address(Dec): BQ25890 Address: 106

Byte Read

Slave Start Register(Dec):

Read Bytes Number (Dec):

(Max Read Bytes Number: 10)

READ

Byte Write

Slave Start Register (Dec):

Write Bytes Number (Dec):

(Max Write Bytes Number:10)

Write Bytes (Dec): (1-5)

(6-10)

WRITE

Read Byte Display (Hex)

Byte1

Byte2

Byte3

Byte4

Byte5

Byte6

Byte7

Byte8

Byte9

Byte10

Write Byte Display (Hex)

BQ25890 Register R/W Status:

I2C Slave Address: 6AH(1101010B + R/W)

REG00: R/W

REG01: R/W

REG02: R/W

REG03: R/W

REG04: R/W

REG05: R/W

REG06: R/W

REG07: R/W

REG08: R/W

REG09: R/W

REG0A: R/W

REG0B: R

REG0C: R

REG0D: R/W

REG0E: R

REG0F: R

REG10: R

REG11: R

REG12: R

REG13: R

REG14: bit0~bit5: R bit6~bit7: R/W

Note: If write bytes can't be read correctly, please refer to BQ25890 datasheet 9.4 for register bits discription to check if write byte is right

Hardware Needed for this Example Code

- MSP430FR2433 LaunchPad Development Kit
- BQ25890EVM-664 module

MSP430FR2433 LaunchPad™ Development Kit MSP-EXP430FR2433

Description & Features

Technical documentation

Support & Training

Order Now

Key Document

 [MSP430FR2433 LaunchPad Development Kit \(MSP-EXP430FR2433\) User's Guide](#)
(PDF 2945 KB)
25 Oct 2017

 [MSP-EXP430FR2433 Software Examples and Design Files](#)

[View All Technical Documents \(4\)](#)



BQ25890EVM-664 BQ25890 Complete Charger Evaluation Module

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Overview

[Description & features](#) | [Supported products](#)

The bq25890 evaluation module (EVM) is a complete charger module for evaluating the highly-integrated switch-mode battery charge management and system power path management device for 1 cell Li-Ion and Li-polymer battery in a wide range of smartphone and tablet applications.

The BQ25890EVM-664 requires USB-Based PC Interface Board EV2300 or EV2400 for I2C interface. If one is not already available to you and I2C is needed then one can be ordered through the eStore. Buy Now EV2300 or EV2400.

Features

- Input voltage range: 3.9V to 14V.
- I2C communication.
- LED indication for status signals.
- Test points for key signals available for testing purposes.
- Jumpers for different circuit configuration.

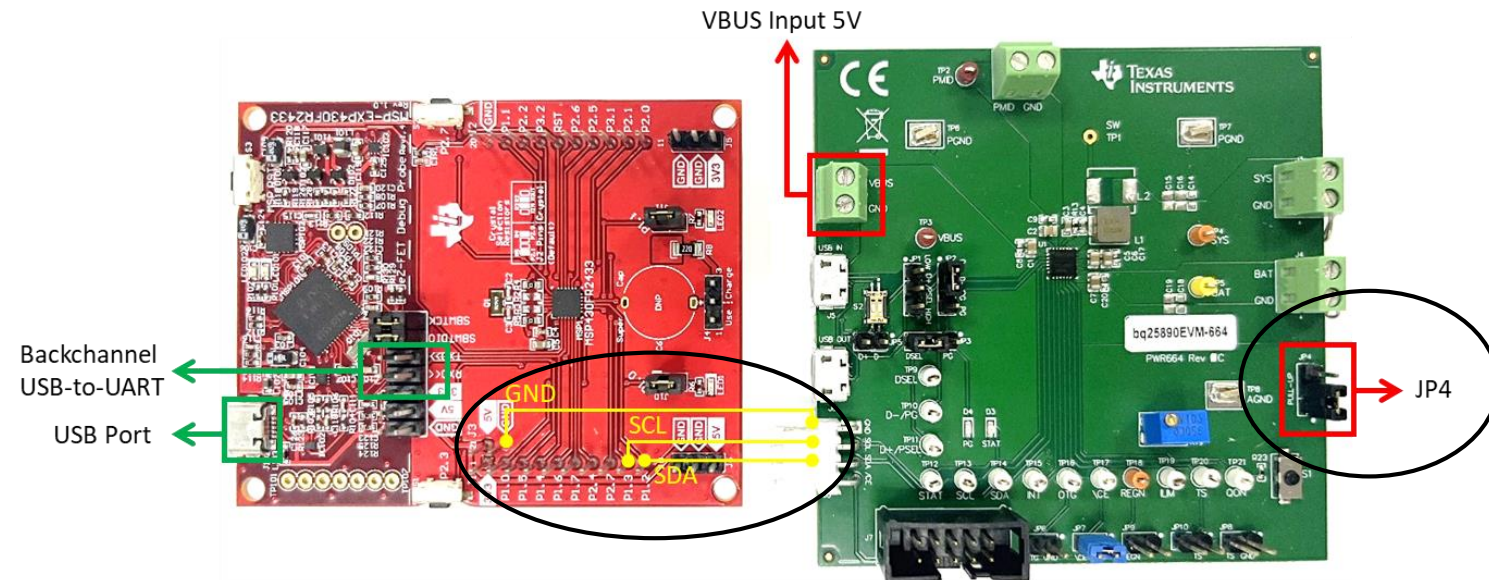


Hardware Connections

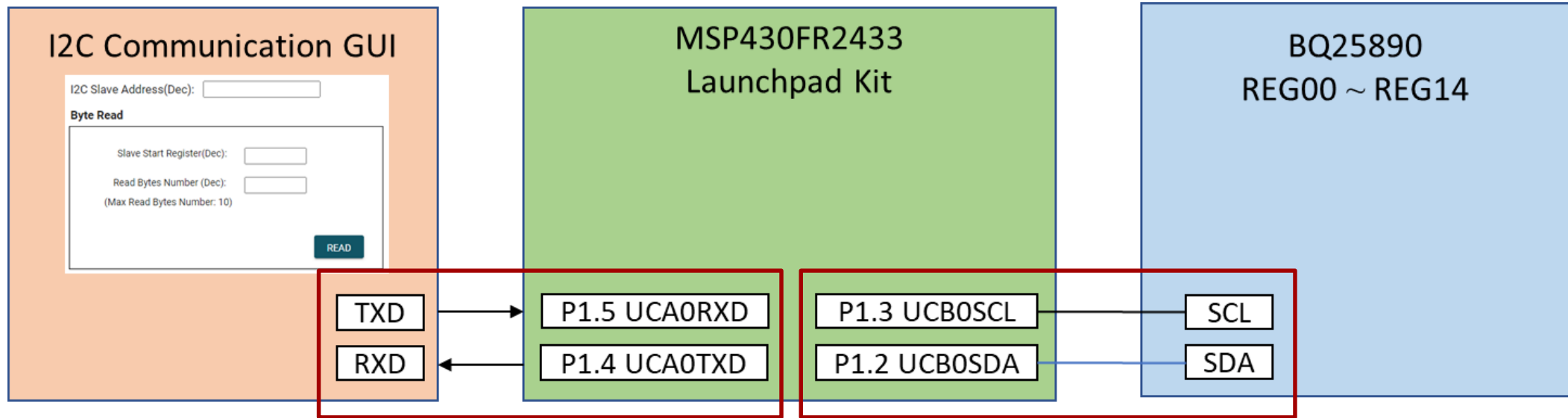
Step1: Connect BQ25890EVM-664 to MSP-EXP430FR2433 launchpad with SDA/SCL/GND line

Step2: Connect headers on BQ25890EVM-664

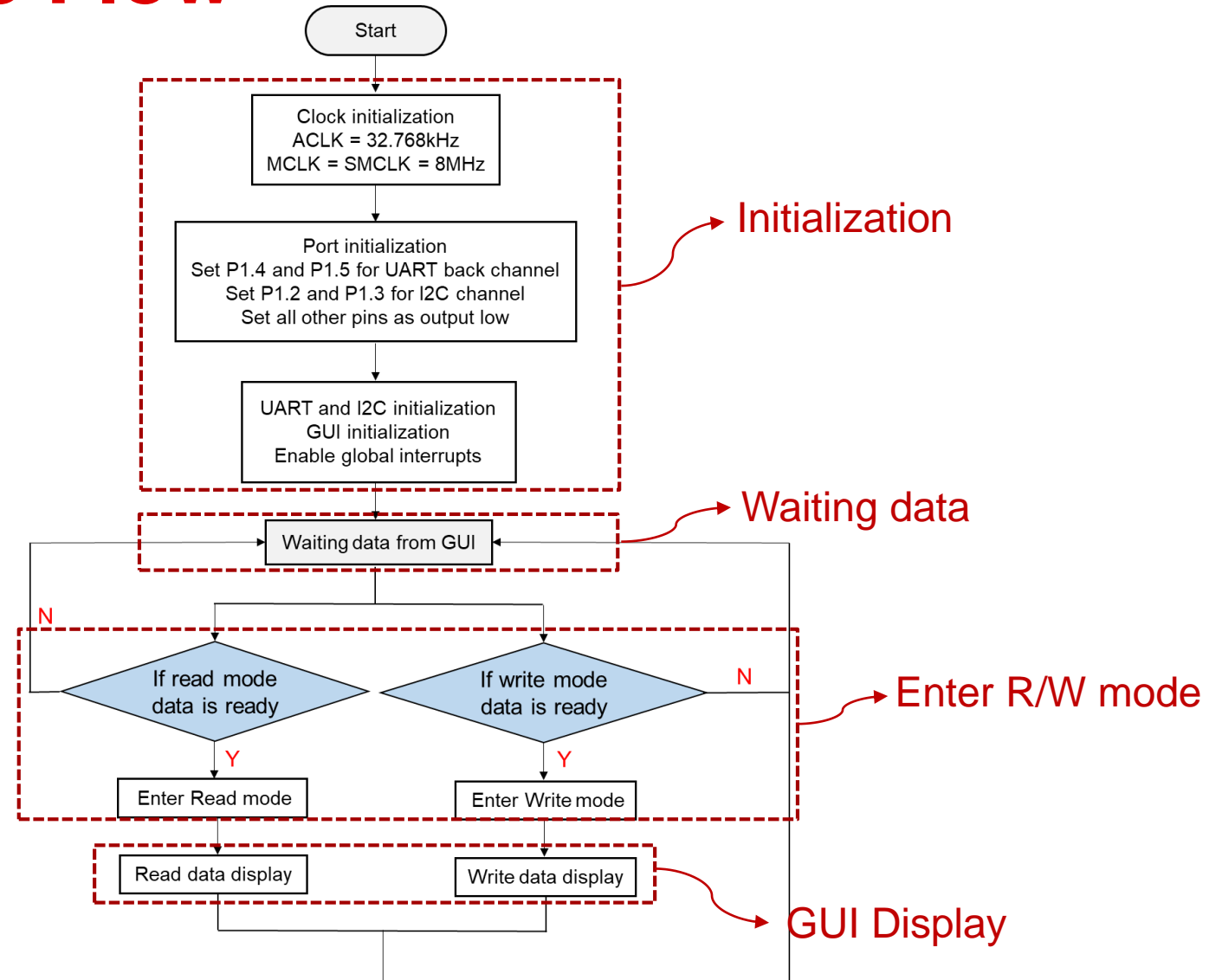
- Check JP1 to JP10
- Set JP4 to high level



System Overview



Example Code Flow



Thanks for watching!

MSP430FR2433: <https://www.ti.com/product/MSP430FR2433>

MSP430FR2433 LaunchPad: <https://www.ti.com/tool/MSP-EXP430FR2433>

BQ25890EVM-664: <https://www.ti.com/tool/BQ25890EVM-664>

MSP I2C Host with Battery Charger IC Tech Note:

<https://www.ti.com/lit/an/slaae51/slaae51.pdf>

MSP I2C Host with Battery Charger IC Source Code: <https://www.dev.ti.com/tirex>

GUI Composer: <https://dev.ti.com/gc/>