

I'm currently working on a project based on MSP-EXP430FR5739 and AFE4300EVM-PDK. My project's goal is to disconnect AFE4300 daughter board with MMB3 board, and connect the former with MSP430 board, as I want to utilize its impedance measuring function exclusively. I expect to use SPI protocol to communicate between AFE4300EVM and MSP430FR5739, and have learned that AFE4300's J103 ports are for SPI and digital signals.

Question 1

The signal SDQ of connector J103 (pin 20), is connected to EPROM BQ2026LPR for the use of accessing EPROM. And it was originally connected to pin86 (P1.1) of MSP430F449 on the MMB3 control board.

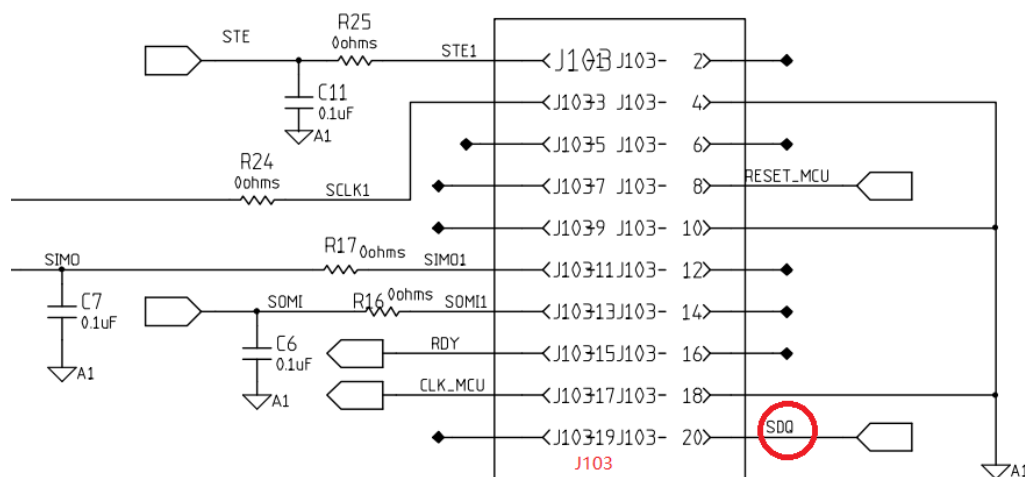
So may I ask what data is stored in this EPROM?

In my new developed system (AFE4300 daughter board controlled by MSP430), should MSP430 do any read/write to the EPROM BQ2026LPR?

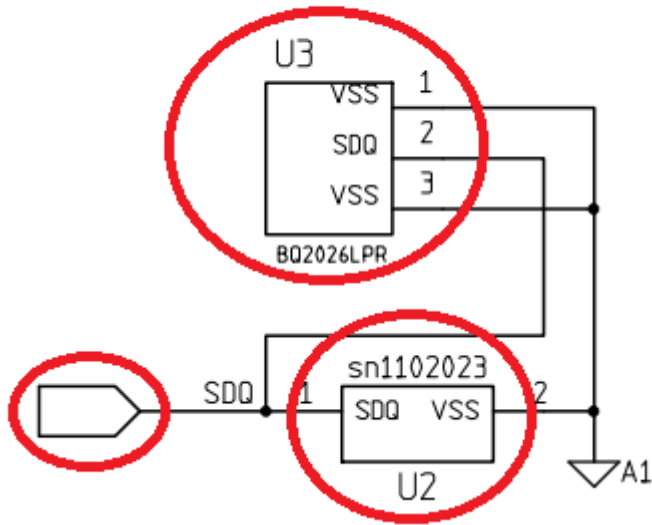
As I didn't find any description and code about this pin's signal in MMB3's frame code, currently I plan to do nothing with EPROM BQ2026LPR, and don't assign any pin on MSP430 to connect to SDQ (J103-20 on AFE4300), will that be ok?

Following are the schematics of the connector J103 and EPROM

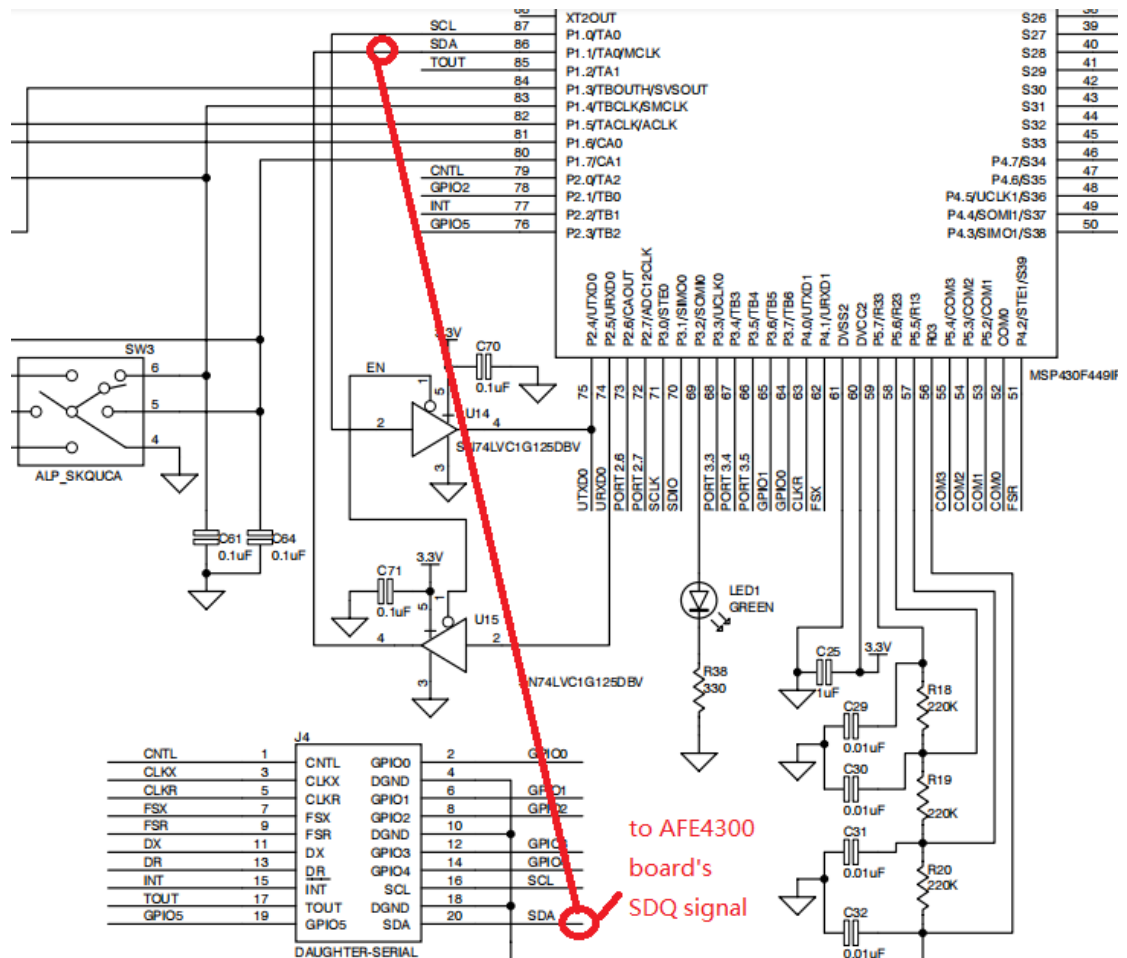
SERIAL CONNECTOR



EPROM



Following is the signal SDA output on MMB3 board (the signal's pin connected to SDQ pin on AFE4300):



to AFE4300
board's
SDQ signal

Question 2:

Will the Pin 1.0 on MSP430FR5379 be able to output a 1MHz clock for AFE4300's operation? How should I set the related registers?

Plus, to output a 1MHz clock to AFE4300, will the function called SMCLK of PJ.0 be better and easier?

Question 3:

How can we calibrate the 16-bit data read from the ADC result register from AFE4300's 0x00, to a integer that means the impedance?