

Power and FTDI

Power.sch

MCU

MCU.sch

Peripherals

Peripherals.sch

Headers and Debug

Headers.sch

Garnet Tanner

SOAR

Sheet: /

File: STM32_SOAR_Reference_Board.sch

Title: STM32 SOAR Reference Board

Size: USLetter

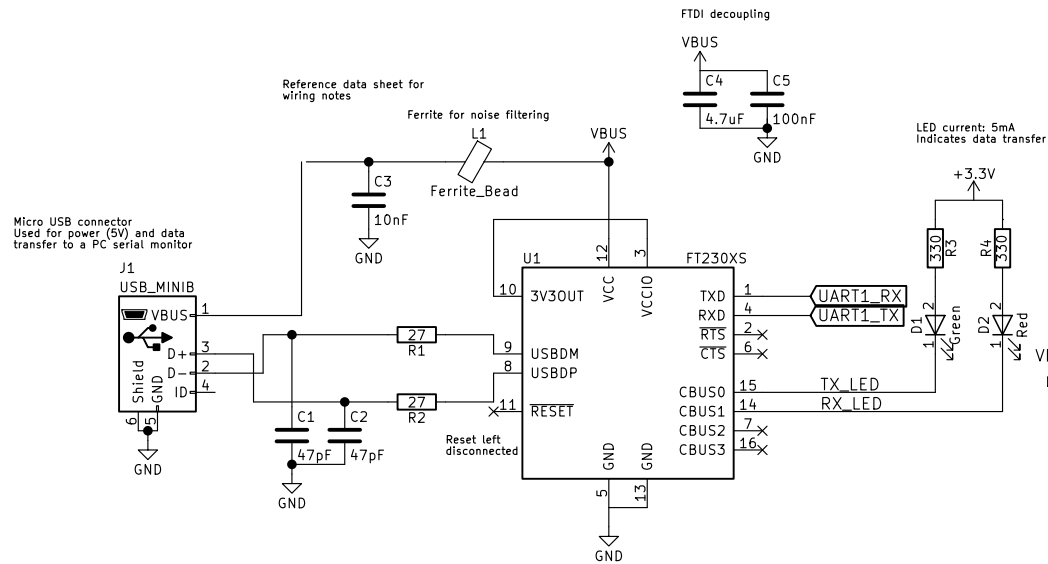
Date: 2017-11-27

Rev: 1

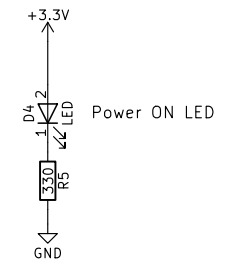
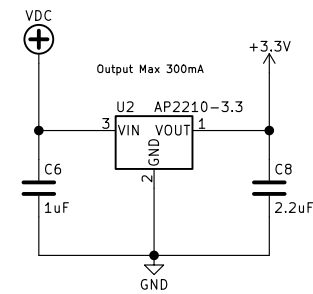
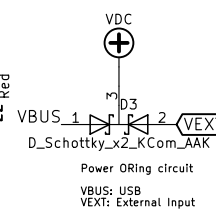
KiCad E.D.A. kicad 4.0.7

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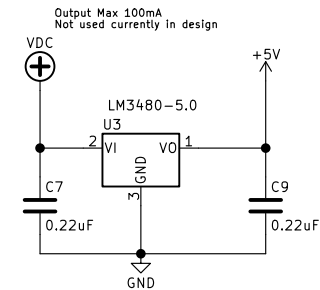
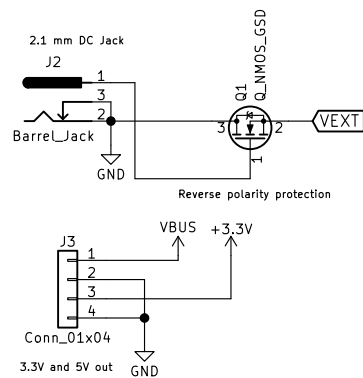
USB Power



3.3V Regulation



External Power 3.5V - 12V



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Sheet: /Power and FTDI/
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Size: A4 Date: 2017-11-27

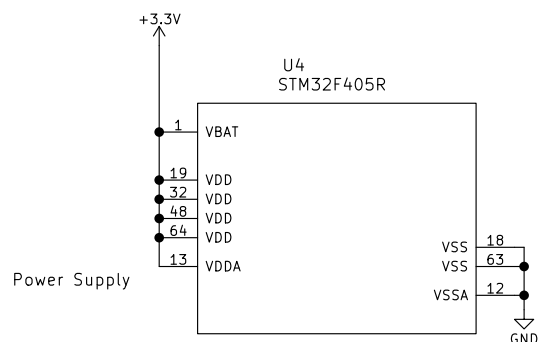
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Rev: 1
Id: 2/5

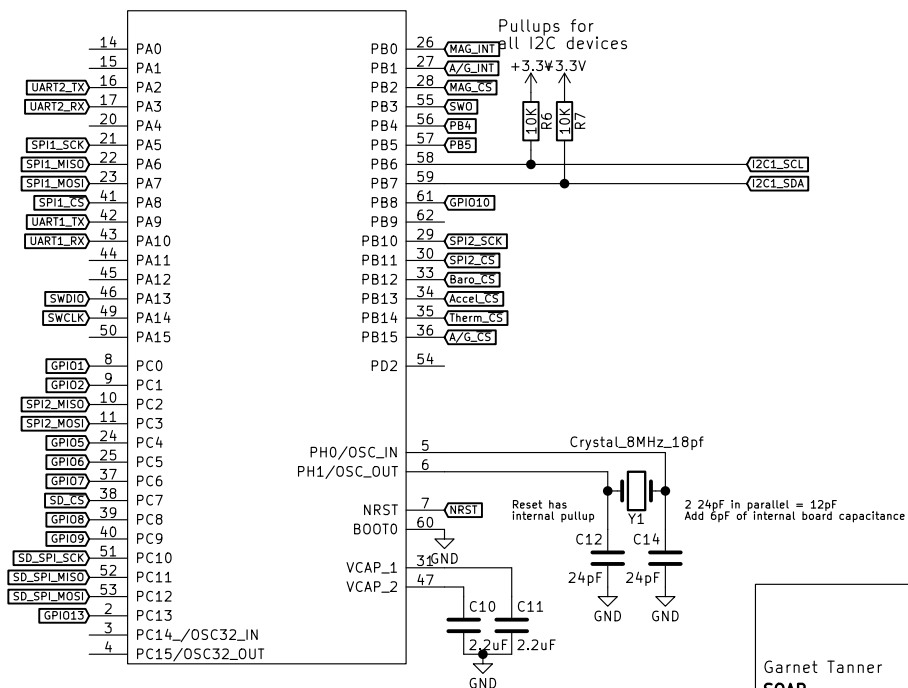
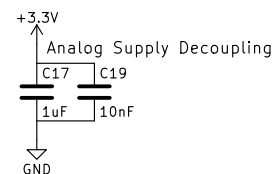
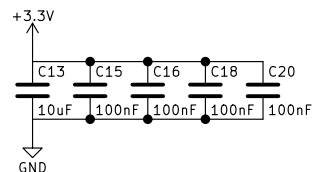
See STM32 Hardware Design Guide for schematic example

STM32F405

Same family as F407 on Discovery boards



Digital Decoupling
1 100nF for each power supply (place close to each VDD pin)
plus 1 10uF



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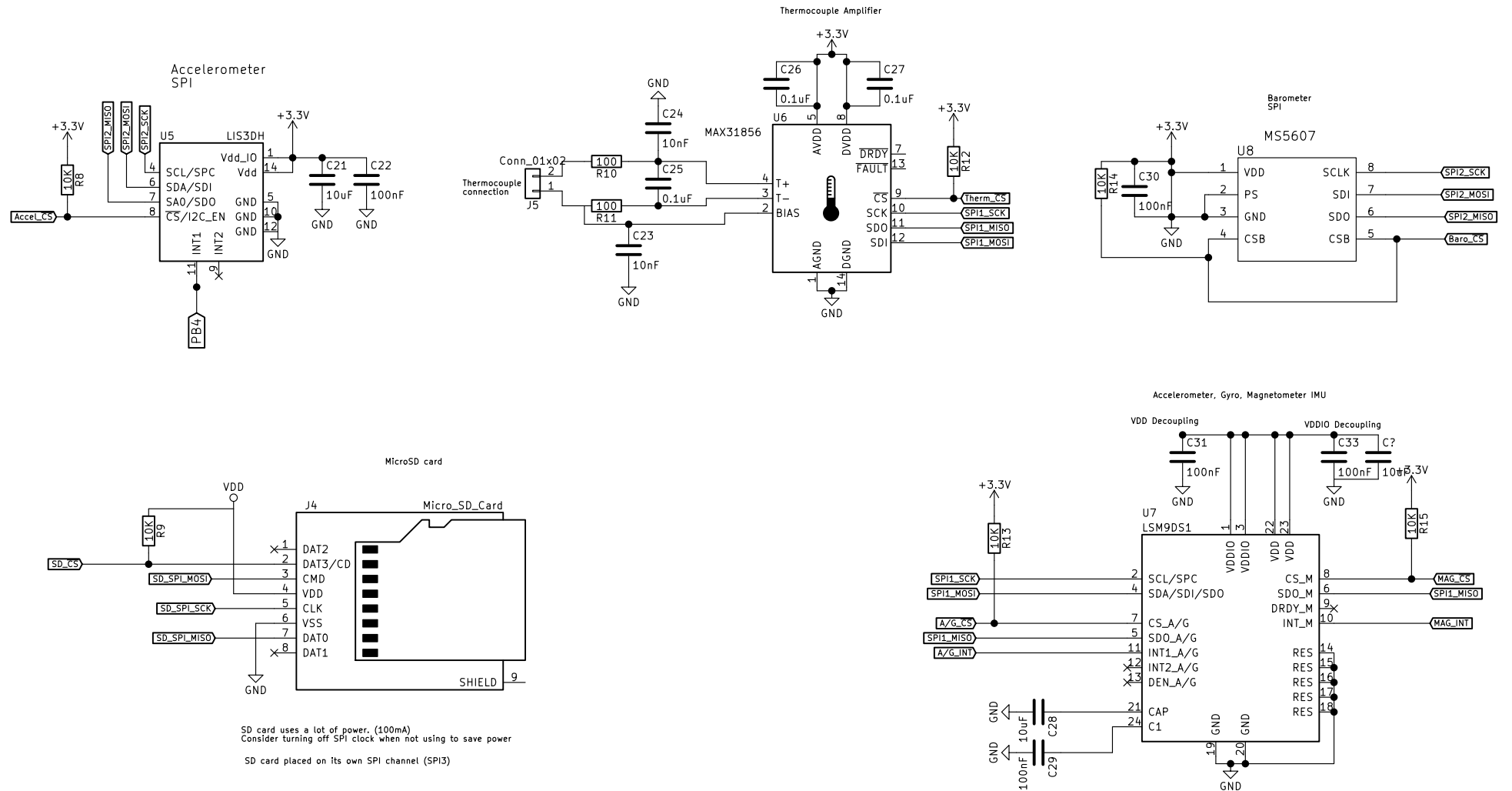
Title: STM32 SOAR Reference Board

Size: A4 Date: 2017-11-27

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SD card uses a lot of power. (100mA)
Consider turning off SPI clock when not using to save power
SD card placed on its own SPI channel (SPI3)

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SOAR

Sheet: /Peripherals/

File: Peripherals.sch

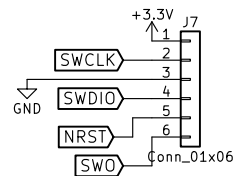
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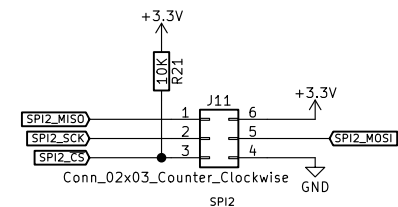
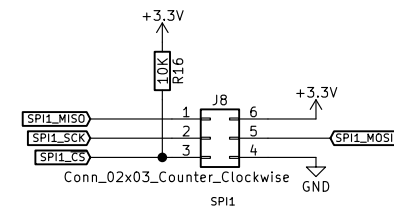
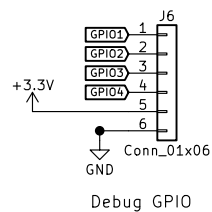
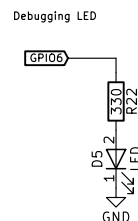
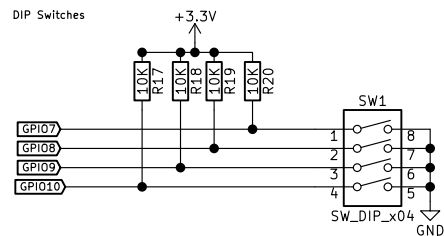
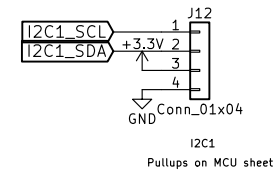
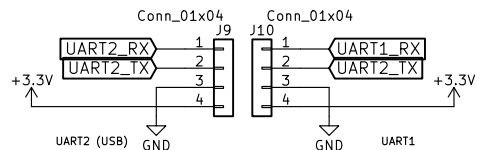
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Rev: 1

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SWD Programming
For use with ST-Link V2 programmer
or discovery board



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