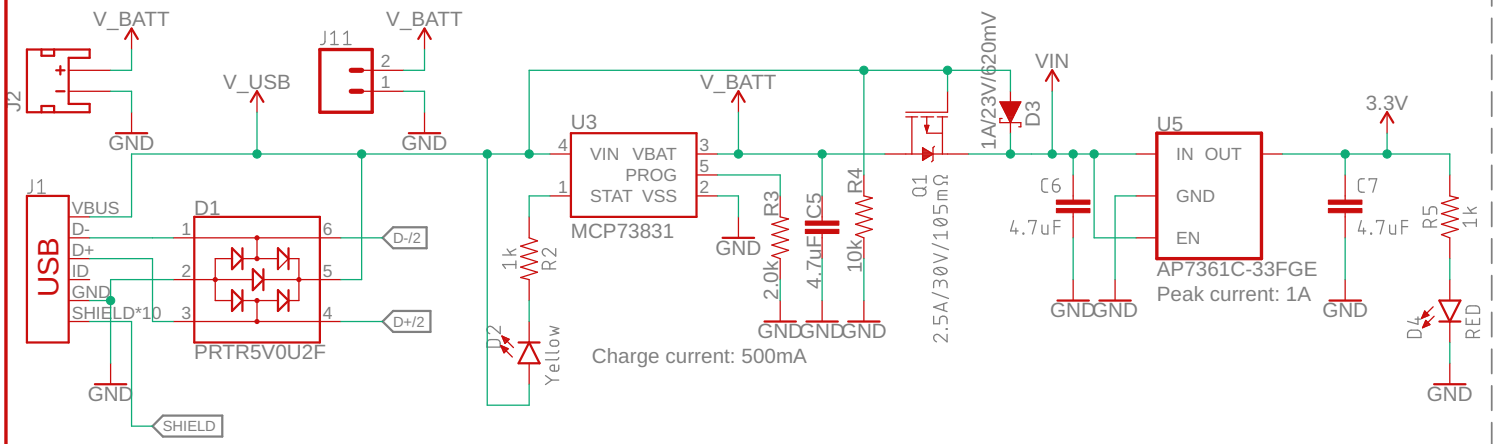
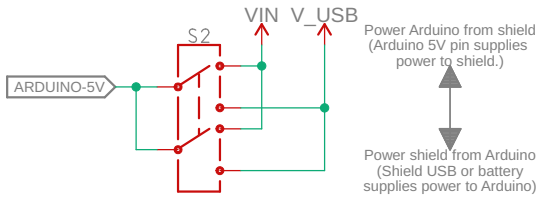
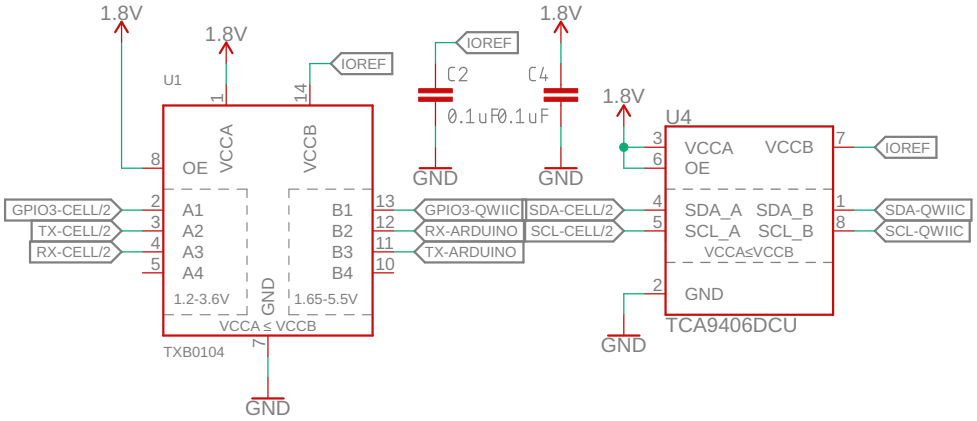
Battery Charger / Voltage Regulator



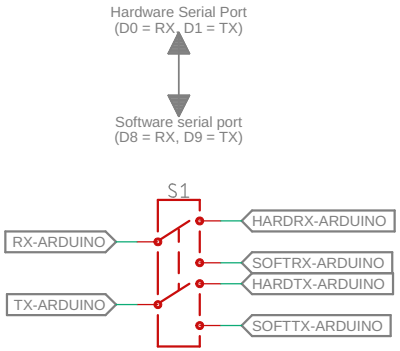
Power Select



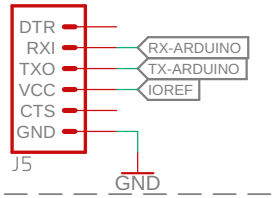
Level Shifting



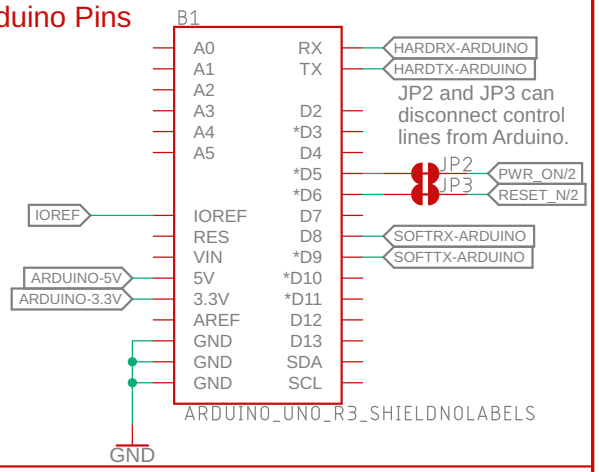
UART-Slect



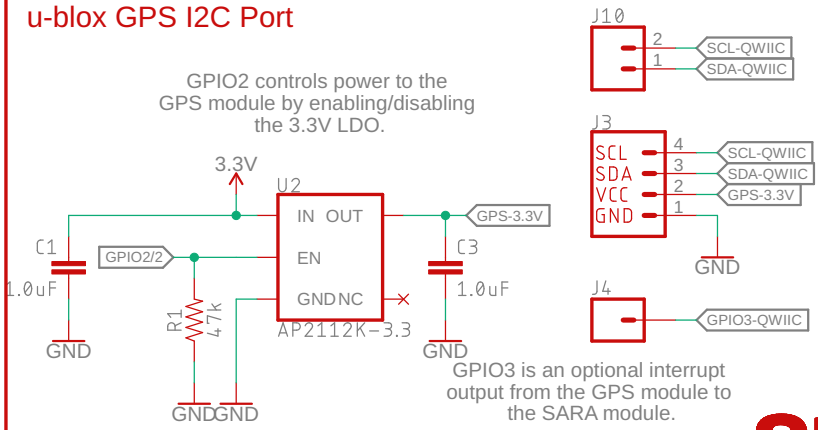
6-Pin Serial Port

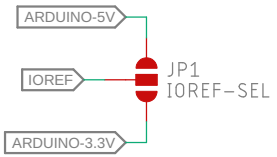


Arduino Pins



u-blox GPS I2C Port





open hardware

sparkfun

TITLE: lte_cat_m1_shield_sara-r4

Design by: Jim Lindblom

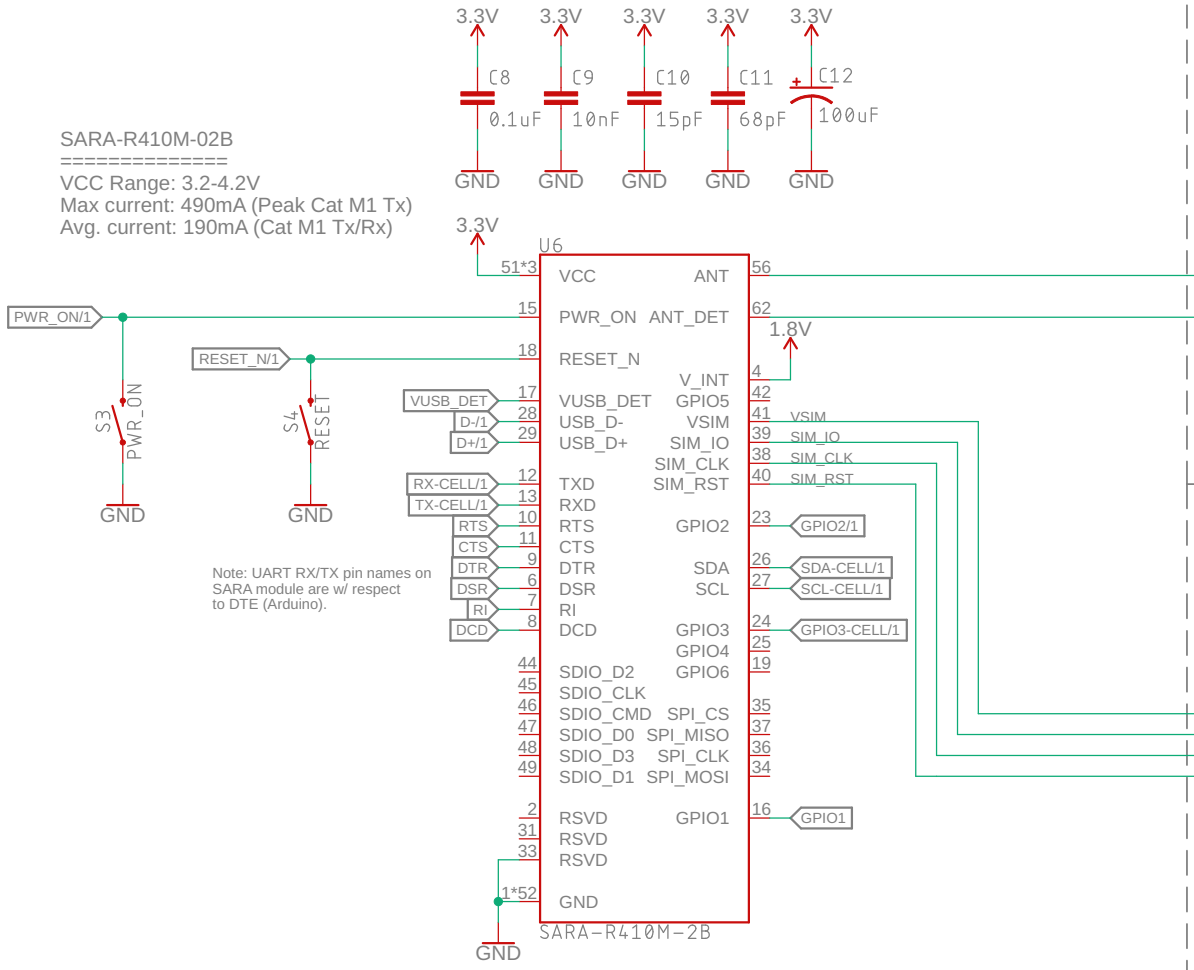
REV: v11

Date: 12/12/2019 9:28 AM

Sheet: 1/2

SARA-R4 Module

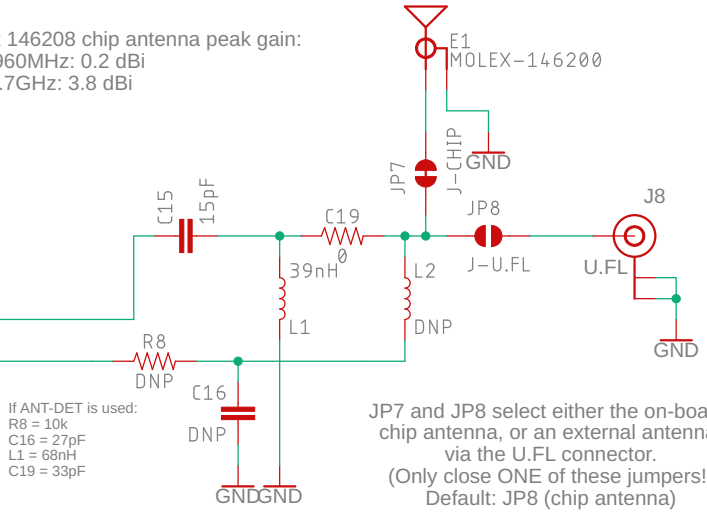
SARA-R410M-02B
==========
VCC Range: 3.2-4.2V
Max current: 490mA (Peak Cat M1 Tx)
Avg. current: 190mA (Cat M1 Tx/Rx)



Note: UART RX/TX pin names on SARA module are w/ respect to DTE (Arduino).

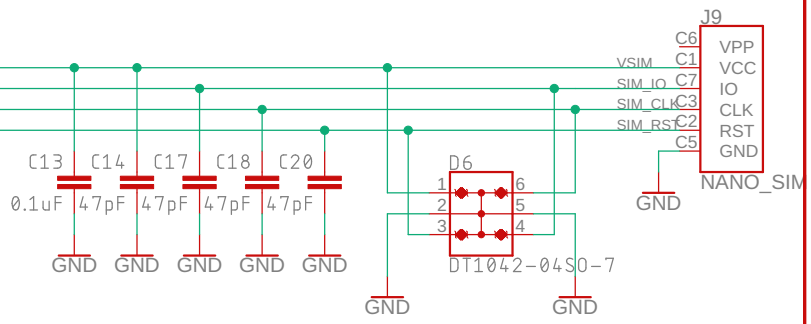
Antenna

Molex 146208 chip antenna peak gain:
698~960MHz: 0.2 dBi
1.7~2.7GHz: 3.8 dBi

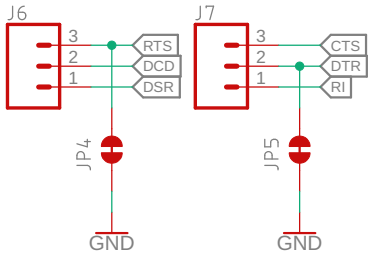


JP7 and JP8 select either the on-board chip antenna, or an external antenna via the U.FL connector.
(Only close ONE of these jumpers!)
Default: JP8 (chip antenna)

NANO SIM Card Holder



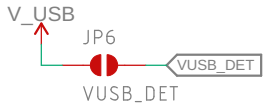
UART Handshake Signals



JP4 and JP5 short RTS and DTR to GND. This is the recommended configuration for a UART with NO FLOW CONTROL.

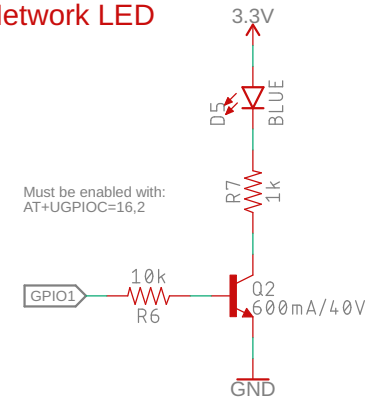
VUSB_DET Enable

To enable the SARA module's USB interface, close JP6. (UART cannot be used while USB is connected!)



Network LED

Must be enabled with:
AT+UGPIOC=16,2



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