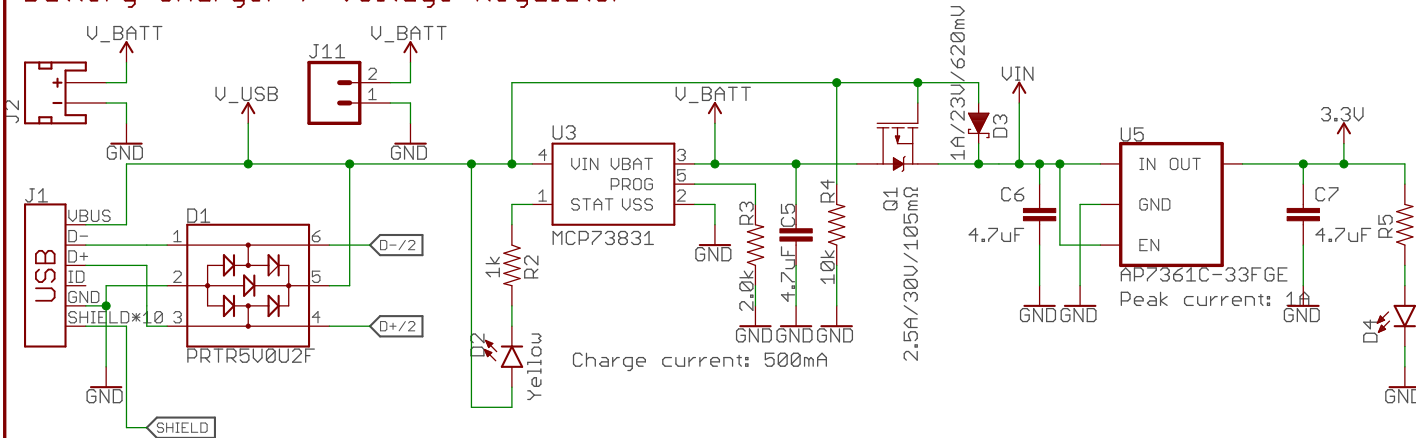
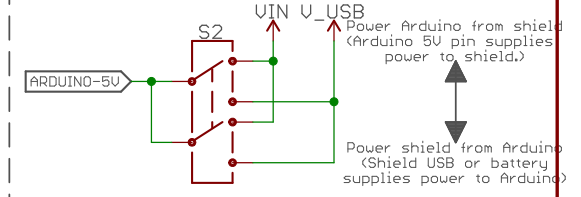


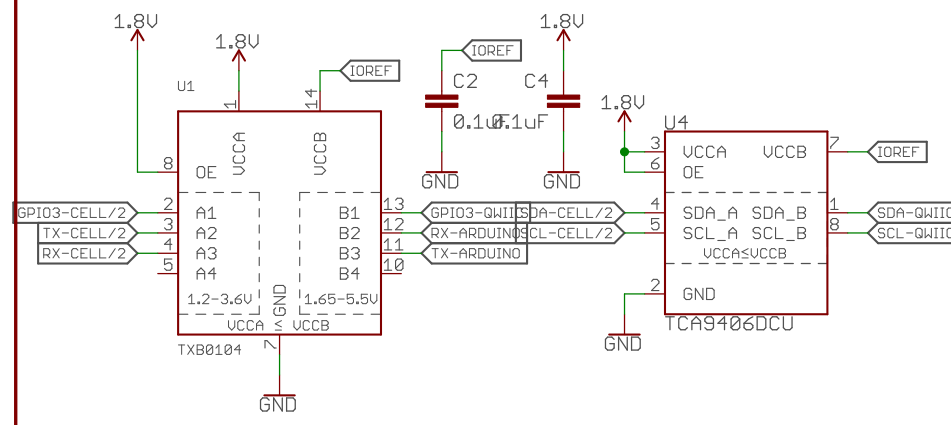
Battery Charger / Voltage Regulator



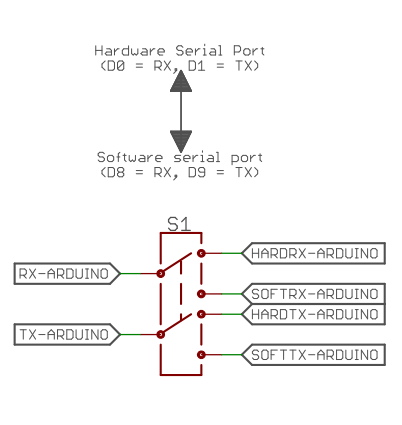
Power Select



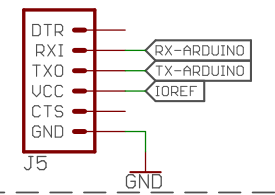
Level Shifting



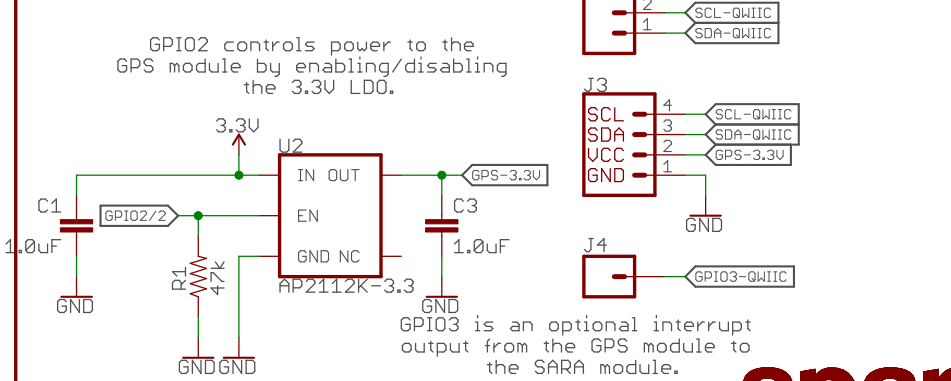
UART-Select



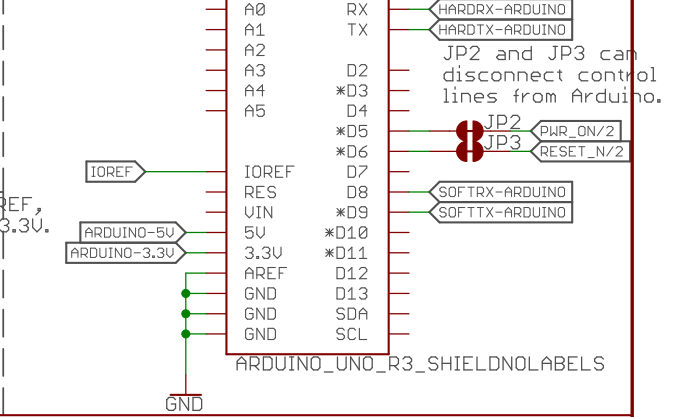
6-Pin Serial Port



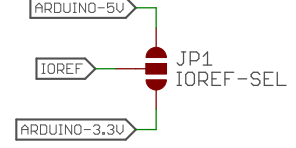
u-blox GPS I2C Port



Arduino Pins



If the Arduino does not supply IOREF, use JP1 to set it to either 5V or 3.3V.



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TITLE: lte_cat_m1_shield_sara-r4

Design by Jim Lindblom

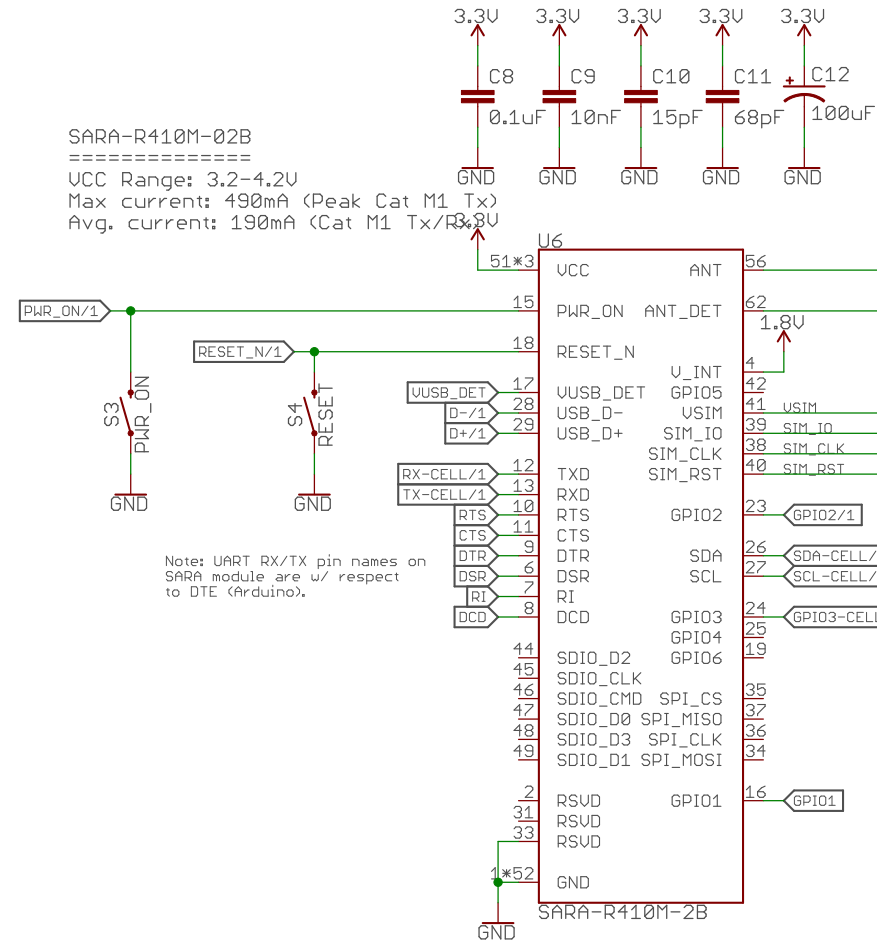
REV: v10

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Sheet: 1/2

SARA-R4 Module

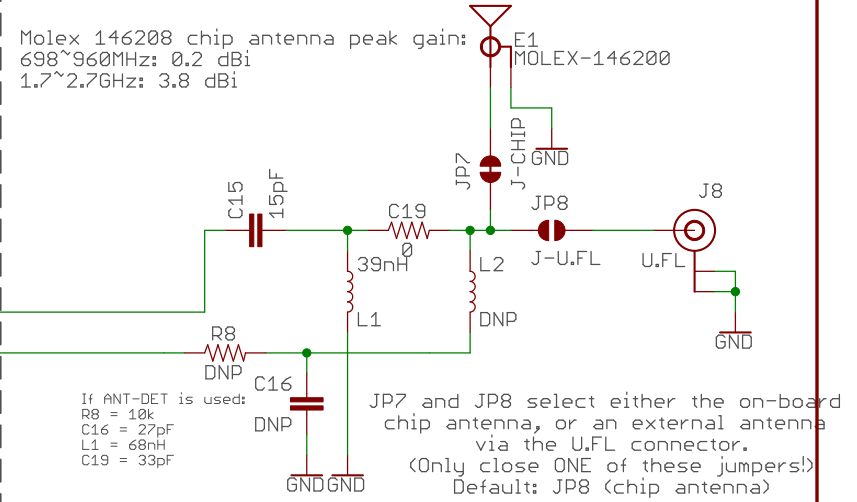
SARA-R410M-02B
 =====
 UCC Range: 3.2-4.2V
 Max current: 490mA (Peak Cat M1 Tx)
 Avg. current: 190mA (Cat M1 Tx/Rx @ 3.3V)



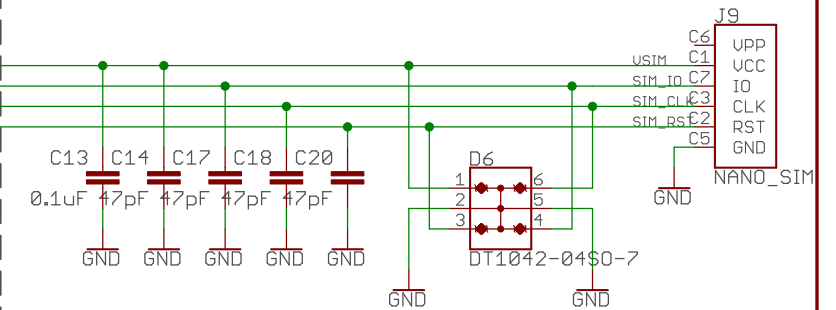
Note: UART RX/TX pin names on SARA module are w/ respect to DTE (Arduino).

Antenna

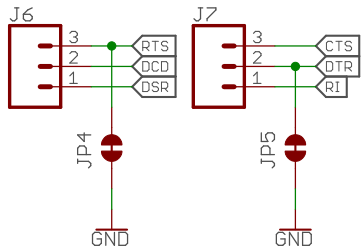
Molex 146208 chip antenna peak gain:
 698~960MHz: 0.2 dBi
 1.7~2.7GHz: 3.8 dBi



NANO SIM Card Holder



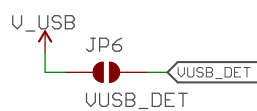
UART Handshake Signals



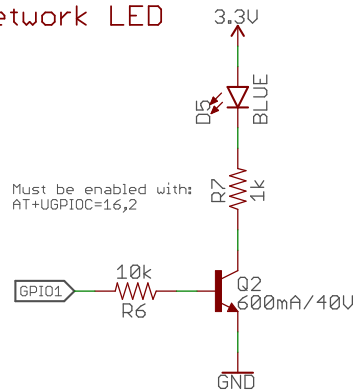
JP4 and JP5 short RTS and DTR to GND. This is the recommended configuration for a UART with NO FLOW CONTROL.

UUSB_DET Enable

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



Network LED



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TITLE: lte_cat_m1_shield_sara-r4

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 v10

Date: 9/18/2018 12:11 PM

Sheet: 2/2