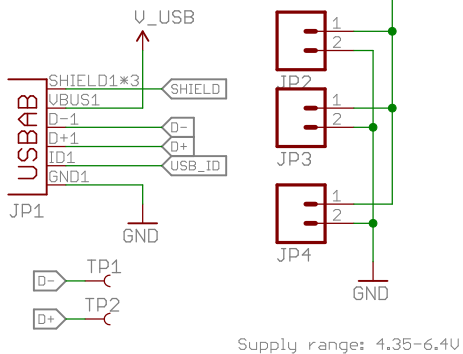
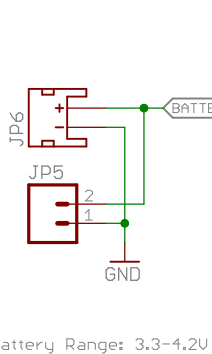


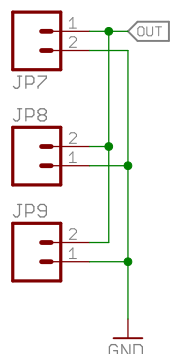
Supply Input



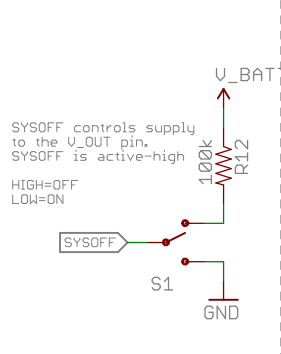
Battery Input



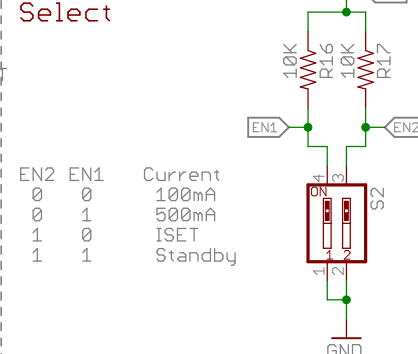
Supply Output



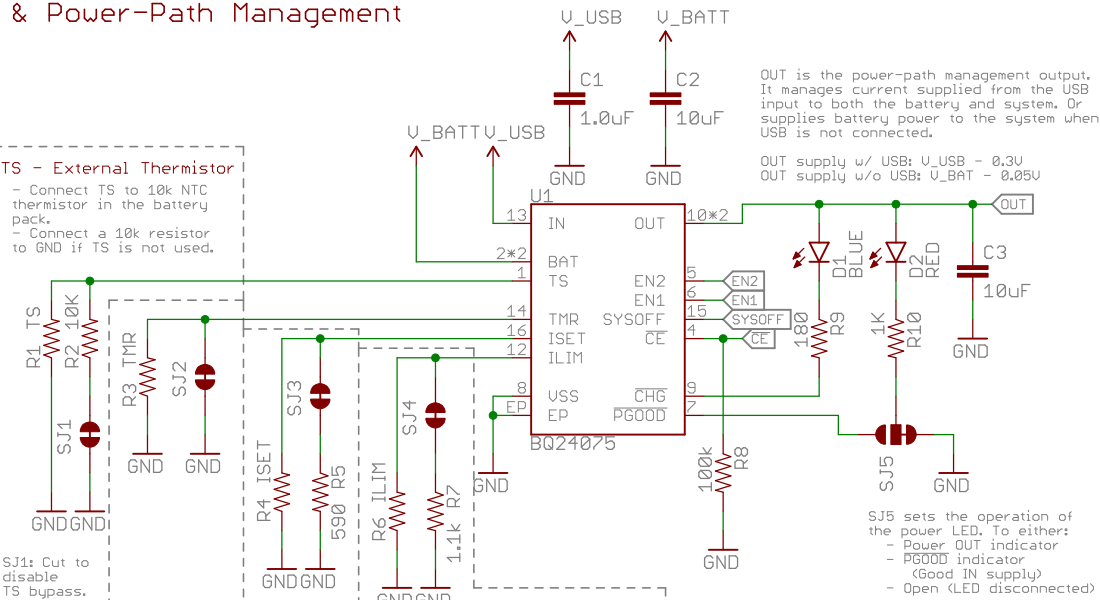
Shutoff Switch



Charge Current Select



BQ24075 - 1.5A USB-Friendly LiPo Battery Charger & Power-Path Management



TS - External Thermistor
 - Connect TS to 10k NTC thermistor in the battery pack.
 - Connect a 10k resistor to GND if TS is not used.

SJ1: Cut to disable TS bypass.

TMR - Safety Timers

Sets pre-charge and fast-charge safety timers.
 - Leave unconnected to set default (30min pre, 5hr charge time)
 - Connect to GND to disable
 - R_TMR range: 18k-72k
 - T_PRE range: 1400-2160 s
 - T_PRE (s) = $0.048 * R_{TMR}$
 - T_MAX (s) = $10 * T_{PRE}$

SJ2: Cut to enable charge timer.

ISET-Charge Current

Sets fast charge current
 - R_ISET range: 590-8.9k
 - I_CHG = $\sim 885 / R_{ISET}$
 - EX: R_ISET = 590 ; I_CHG = 1.5A

SJ3: Cut to set custom ISET.

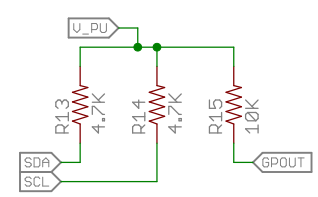
ILIM - System/Load Current Limit

Sets combined system load and battery charge currents pulled from USB input.
 - I_ILIM range: 1.1k-8k
 - EX: R_ILIM = 1.1k ; I_ILIM = 1.5A

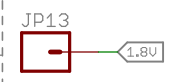
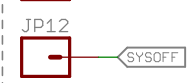
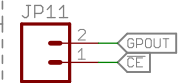
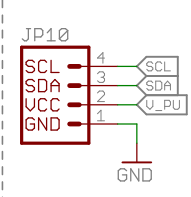
SJ4: Cut to set custom ILIM.

I2C Pull-Ups

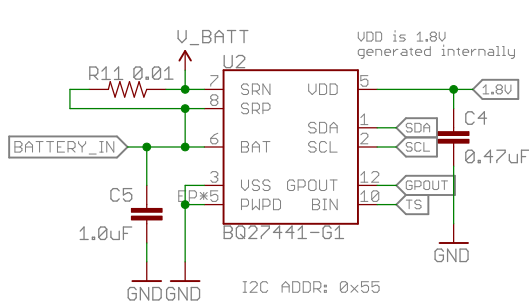
V_PU is an externally supplied voltage to set the pull-up resistor HIGH voltage. Allowable range: 1.62-6V



Headers



BQ27441-G1 Fuel Gauge



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TITLE: sparkfun-battery-babysitter

Design by: Jim Lindblom

REV: v10

Date: 6/8/2016 1:52 PM

Sheet: 1/1

