RTC Backup

3.3V

D2
0.5A/40V/420mV

R2
3.3k

BACKUP

BT1   C1
       1.0uF

GND   GND
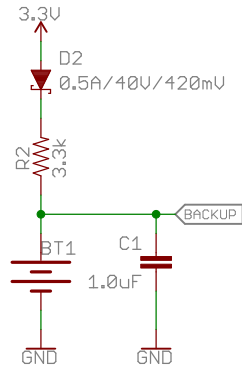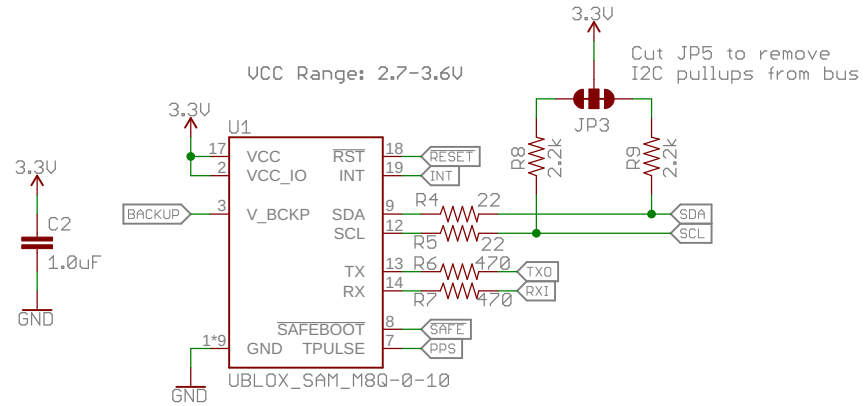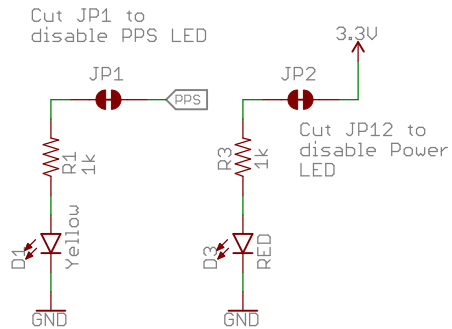
Battery Initial Charge: 2.3-2.8V
Battery Charge Rate: 1mA MAX
Voff: 2.0V
72 hours charge time from 2.0-3.1V

Ublox SAM-M8Q

VCC Range: 2.7-3.6V

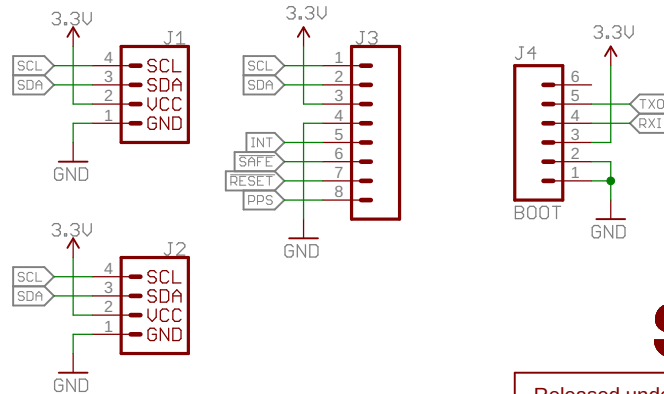3.3V

Cut JP5 to remove
I2C pullups from bus

JP3

R8   R9
2.2k 2.2k

3.3V

C2
1.0uF

GND

U1

17	VCC	RST	18	RESET
2	VCC_IO	INT	19	INT
3	V_BCKP	SDA	9	R4 22	SDA
		SCL	12	R5 22	SCL
		TX	13	R6 470	TXO
		RX	14	R7 470	RXI
1*9	GND SAFEBOOT TPULSE		8	SAFE
			7	PPS

BACKUP

UBLOX_SAM_M8Q-0-10

GND

7-bit unshifted I2C address: 0x10

Pulse Per Second LED

Cut JP1 to
disable PPS LED

JP1   JP2   3.3V

PPS

R1   R3
1k   1k

Cut JP12 to
disable Power
LED

D4 Yellow   D3 RED

GND   GND

Connectors

3.3V

J1
4	SCL
3	SDA
2	VCC
1	GND

SCL
SDA

GND

3.3V

J3
| 1 |
| 2 |
| 3 |
| 4 |
| 5 |
| 6 |
| 7 |
| 8 |

SCL
SDA

INT
SAFE
RESET
PPS

GND

3.3V

J4
| 6 |
| 5 |
| 4 | TXO |
| 3 | RXI |
| 2 |
| 1 |

BOOT

GND

3.3V

J2
4	SCL
3	SDA
2	VCC
1	GND

SCL
SDA

GND

sparkfun open hardware

TITLE: SparkFun_Ublox SAM-M8Q

Design by: Nathan Seidle
Revised by: Elias Santistevan

REV:
v10

Date: 3/4/2019 4:04 PM

Sheet: 1/1