GND

200
R12
D3

3.3k
R11

32.758khz
X1

N/A?
R10

1.5M R13

510K
R14

BATT

B1
CR2032

U$2
X1   VCC   8
X2   SQW   7   SQ
VBATT SCL   6   SCL
GND   SDA   5   SDA
DS1307SO8-TIGHT

5V

C1
0.1uFd

C2
0.1uFd

GND

3.3k R16
3.3k R15

3.3V

IC6
8 VCC   A2 3
         A1 2
         A0 1
         WP 7
4 GND   SCL 6   SCL
         SDA 5   SDA
AT24CP

GND

GND
3.3V
CE
CSN
SCK
MOSI
MISO

1 GND
2 VCC
3 CE
4 CSN
5 SCK
6 MOSI
7 MISO
8 IRQ

ANTENNA

M1
WIRELESS-NRF24L01

JP2   GND
TX   1 2
3.3V 3 4
     5 6
     7 8 RX
ESP8266

VIN

R18
2M

C4
0.1uF

L1
4.7uH, 1.2A

5V
IN   OUT 3.3V
GND
U$1
V_REG_LD1117VXX

GND

5V

U2
5   VIN   L   3
6   EN   VOUT 2
8   PS   VAUX 1
7   UVLO   FB   10
9   GND   PGND 4
15 PAD   PAD   14
11 PAD   PAD   13
12 PAD
TPS61200

UVLO 2.6V

C6
10uF

R19
220k

R20
1.2M

3.3VO

SJ1

5VO

R22
2M

C3
22uF

C5
0.1uF

R21
220k

GND

VCC

R25 1K
R26 1K
R27 1K

ORANGE
CHRG/LBO
GREEN
DONE
RED
PWR

VCC

R23
270K

100K R24

GND

VCC
P$18 P$19

VCC

P$2   VPCC   IN1 IN2
P$6   /PG   OUT1 P$1
P$7   STAT2   OUT2 P$20
P$8   STAT1/LBO

VIN

C7
10uF

GND

P$3   SEL   VBAT1 P$14
P$4   PROG2   VBAT2 P$15
P$9   /TE   VBAT3 P$16
P$17 CE

VCC

D2
MBR120VLSFT1G

C9
10uF

+ C10
4700uF/10V

GND   GND   GND

MCP73871

P$13 PROG1
P$12 PROG3

R28 2K
R29 100K

GND   GND

P$10 P$11 P$21

GND

P$5   THERM

R30
1K

THERM
10K
RT2
150K

C8
10uF

GND   GND   GND

1
2
GND BATT

e Rate = 1000V/PROG1

1.0K = 1000mA
2.0K = 500mA

No Thermistor: RT1 = 0, RT2 = 10K
10K NTC Thermistor: RT1 = TBD, RT2 = TBD