P$6 P$6 ULED_OUT
P$5 P$5 RTC_32KHZ
P$4 P$4 RTC_SQW
P$3 P$3 3V3
P$2 P$2 VBUS
P$1 P$1 GND

P$4 P$4 VCC
P$3 P$3 SWDD
P$2 P$2 SWDC
P$1 P$1 GND

P$6 P$6 GPIO9
P$5 P$5 GPIO8
P$4 P$4 GPIO7
P$3 P$3 GPIO6
P$2 P$2 GPIO5
P$1 P$1 GPIO4

X2
VCC 1
GPIO1 2 6
GPIO2 3 7
GPIO3 4 8 SWDC
GND 5 9 SWDD

R3 2.2k
R1 470 V_48
V_12
R4 100
R2 100
GND
GND

CASE_GND
GND
ID DPLUS
DMIN
VBUS
CASE_GND
GND
DPLU DPLUS
DMIN DMIN
VBUS VBUS

SW1 SPST_TACT-KMR2
RST 1 2 GND
3 4

GND C1 GND
3V3
SWDD SWDC C7 GND RST GPIO8
32 31 30 29 28 27 26 25
UL1 1 PA00 PA31 PA30 VDDIN VDDCORE GND2 PA28 RESET PA27 PA25 24 DPLU
2 PA01 PA24 23 DMIN
GPIO1 3 PA02 PA23 22 RTC_SCL
4 PA03 PA22 21 RTC_SDA
V_48 5 PA04 PA19 20 SEL
V_12 6 PA05 PA18 19 MOSI
GPIO2 7 PA06 VDDANA PA08 PA09 PA10 PA11 PA14 PA15 PA17 18 SCLK
GPIO3 8 PA07 PA16 17 MISO
9 10 11 12 13 14 15 16
3V3 GND GPIO4 GPIO5 GPIO6 GPIO7 GPIO9
C2 R11 1k
GND
LED3
GND

VBUS
GND
VBAT P$1 BP1 BMIN BP2 P$2
P$3

MCP73831/2
VBUS
4 VDD VBAT 3
R5
PROG 5 12k
LED1
R6 470
1 STAT VSS 2
R7 470 LED2
IC1
GND
GND

VCC VBAT VBUS
D1 D2 D3
REG_VIN
GND
3V3
C8 C5
LED8
R10 1k
GND GND
GND

P$3 NC
P$2 GND
P$1 EN
P$4 VIN
P$5 VOUT

3V3 3V3
R13
R12 10k
RTC_32KHZ 1 32KHZSCL 8 RTC_SCL
3V3 2 VCC SDA 7 RTC_SDA
RTC_SQW 3 SQW VBAT 6 VBAT
4 RST GND 5 GND
RTC1
DS3231M
3V3 3V3
R9
R8 10k

GND5 GND5
GND4 GND4
MISO GND3 GND3
MOSI DAT2 DAT2
SCLK CS CS
SEL CMD CMD
VDD VDD
SCLK CLK
VSS VSS
3V3 DAT0 DAT0
DAT1 DAT1
GND2 GND2
GND1 GND1

U1
REG_VIN VDD RGB DI UL1
GND VSS WS2812 DO ULED_OUT
WS2812

3/7/2020 4:39 PM f=0.80 C:\Users\Starlord\AppData\Local\Temp\Neutron\ElectronFileOutput\8e6f01b6-563b-40ce-8ec0-97e8a3d8b697\Utility_Micro v81.sch (Sheet: 1/1)