Li-Ion Charge Management Controller

GND GND

D1
LED
100R

R5
DNP

RVSET – R5
NC   – 4.2V
43K – 4.3V
75K – 4.35V
100K – 4.4V

R3

C5 10uF GND

GND GND

C2 22uF   C3 10uF   R12 0.5R   +BATT

+5V

1 D1   VIN 8
2 TEST SW 7
3 D2   ICHG 6
4 NTC BAT 5

EPAD

U1
IP2312

L1 1uH
DNP   GND

R11 0.5R   C4 22uF   C6 470nF

GND

R2 1K   R4 1K   R6 51K

C1 22uF

GND

GND GND

+BATT +BATT GND

GND

RICHG – R9
135K – 1A
91K – 1.5A
45K – 3A
NC   – 2.1A

Battery Protection Circuit

-BATT

B1
Battery

2 GND 18650 VBB 1

+BATT

R13 1K

U2
FS312F-G

1 OD   GND 6
2 CS   VCC 5
3 OC   TD 4

312F

C7 100nF

R18 100R

GND

OD

OC

GND

Q2
S8205A

1 D1/D2   D1/D2 8
2 S1   S2 7
3 S1   S2 6
4 G1   G2 5

-BATT

OD

GND

OC

Q3
S8205A

1 D1/D2   D1/D2 8
2 S1   S2 7
3 S1   S2 6
4 G1   G2 5

-BATT

OD

GND

OC

Battery Connections

J1
Conn_01x04_Male

1 PWR_FLAG
   +5V
2 +5P
3 B_SENSE
4 GND

PWR_FLAG

Battery Charge Sensor

+BATT   R8 120K   R10 30K   GND

B_SENSE

Voltage divider by factor of 5

USB & Battery Switch

+BATT

+5V

Drain
3

1

Q1
CJ2305

Source
2

D2
B5819W

R1 120K

F1
350mA

PWR_FLAG

GND   +5P

For use with SlimeVR and made with <3
Licensed under CERN-OHL-P v2 or later
gitlab.com/wigwagwent/18650_slime
Sheet: /
File: 18650_Slime_battery.kicad_sch
Title: 18650_Slime_Battery
Size: A   Date: 2023-06-18   Rev: V1.0.0
KiCad E.D.A. kicad 7.0.5   Id: 1/1