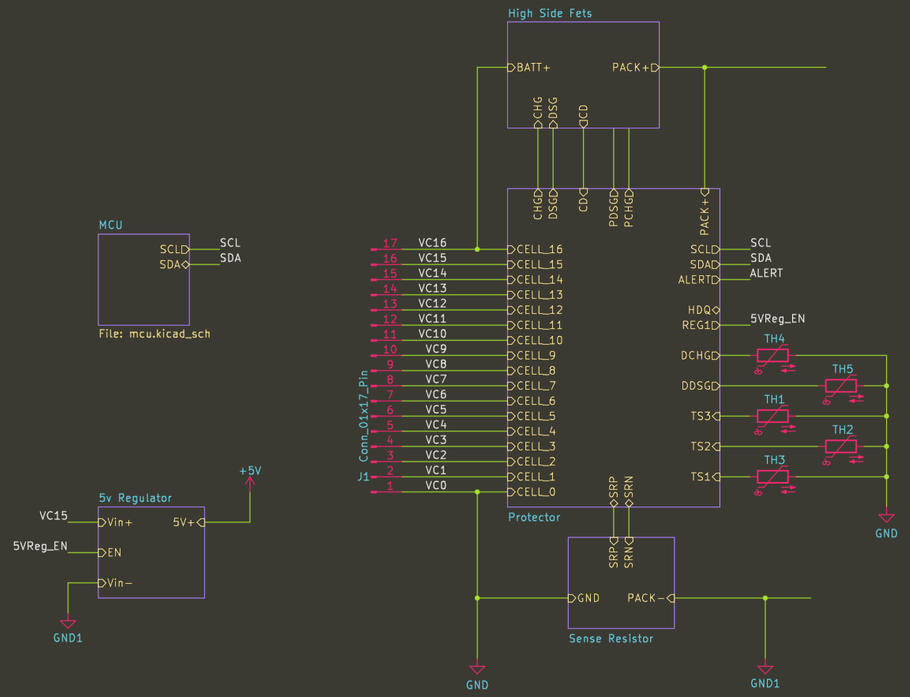


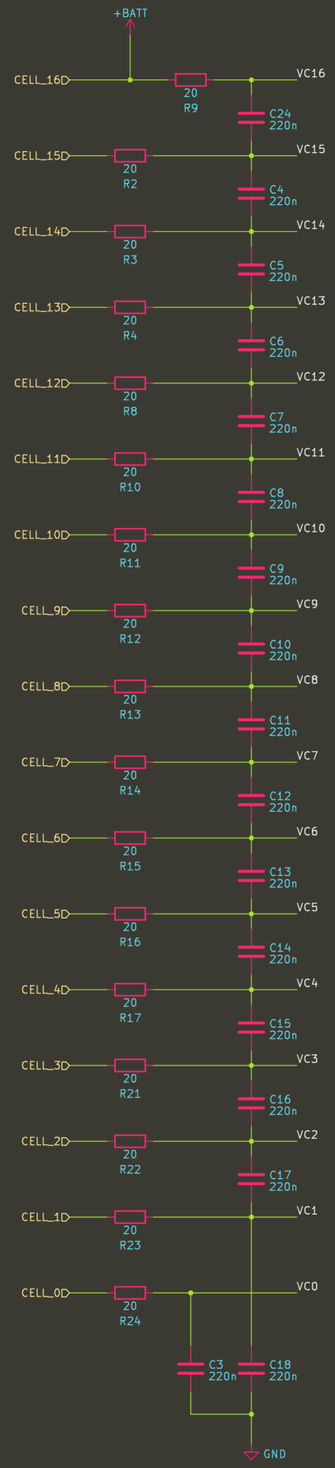
Dumb bitch got a 3A charger
54.6v

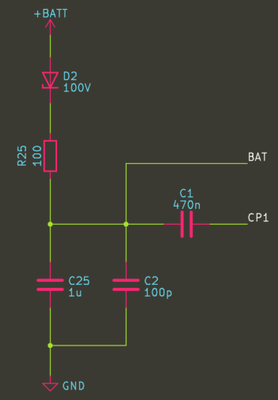
QTech BMS Dept

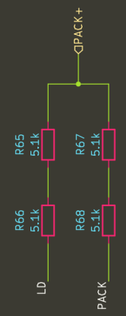
Sheet:
File: bms.kicad_sch

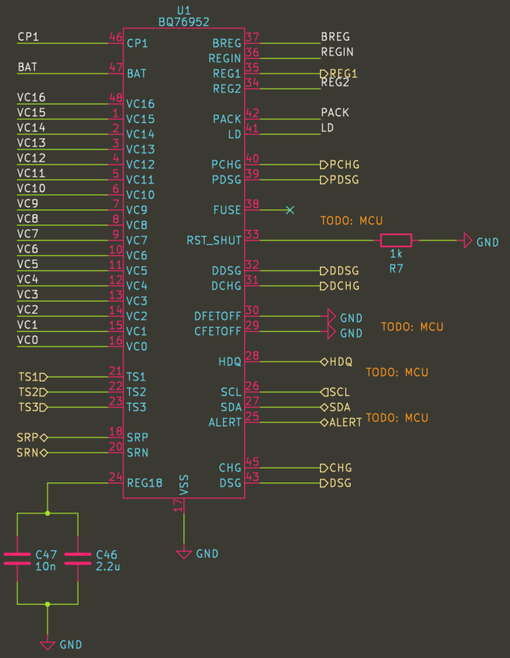
Title: BMS

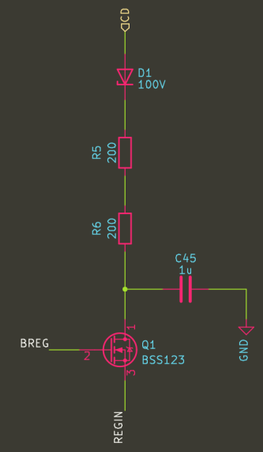
Size: B	Date: 2022-10-30	**Rev: Rev 0**
KiCad E.D.A. kicad 7.0.1		Id: 1/6











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Title: Protection and Balancing		
Size: B	Date: 2022-10-30	Rev: Rev 0
KiCad E.D.A. kicad 7.0.1		Id: 20/6

TODO: Consider page 19 of BQ76940 datasheet
Cal shit

U5
MCP1700x-330xxTT
+5V
VI
VO
GND
+3.3V
C22 1u
C23 100n
C26 1u
C27 100n
GND1

U2
MCP100-270D
+3.3V
VDD
RST
VSS
RST
GND1

R18 1M
Y1 8MHz
OSC_IN
OSC_OUT
GND1

Y2 32.768kHz
OSC32_IN
OSC32_OUT
GND1

+3.3V
VBAT
VSSA
VDDA
VSS_1
VSS_2
VSS_3
VDD_1/O_1
VDD_2
VDD_1/O_3
GND1

RST
BOOT0
OSC_IN
OSC_OUT

PA0 PA1 PA2 PA3 PA4 PA5 PA6 PA7
PA8 PA9 PA10 CAN_RX PA11 CAN_TX PA12 SWDIO PA13 SWCLK PA14 PA15

PB0 PB1 PB2 BOOT1 PB3 PB4 PB5 PB6 SCL PB7 SDA PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15

PC13 PC14 OSC32_IN PC15 OSC32_OUT

+3.3V
C28 100n
C29 100n
C30 100n
C42 100n
C43 100n
GND1

+3.3V
R19 10k
J2 SWD
R20 10k
BOOT0
BOOT1
GND1
GND1

+3.3V
+3.3V
R54 10k
R55 10k
SCL
SDA

+5V
U7
+Vin
SGNDin
-Vin
+Vout
SGNDout
-Vout
C48 10u
C44 100n
C49 100n
C50 10u
5V_CAN
GND_CAN
GND1

+5V
C51 100n
GND1

+5V
U6
VCC1
TXD
RXD
GND1
VCC2
CANH
CANL
GND2
CAN_TX
CAN_RX
5V_CAN
CAN_H
CAN_L
GND_CAN
GND1

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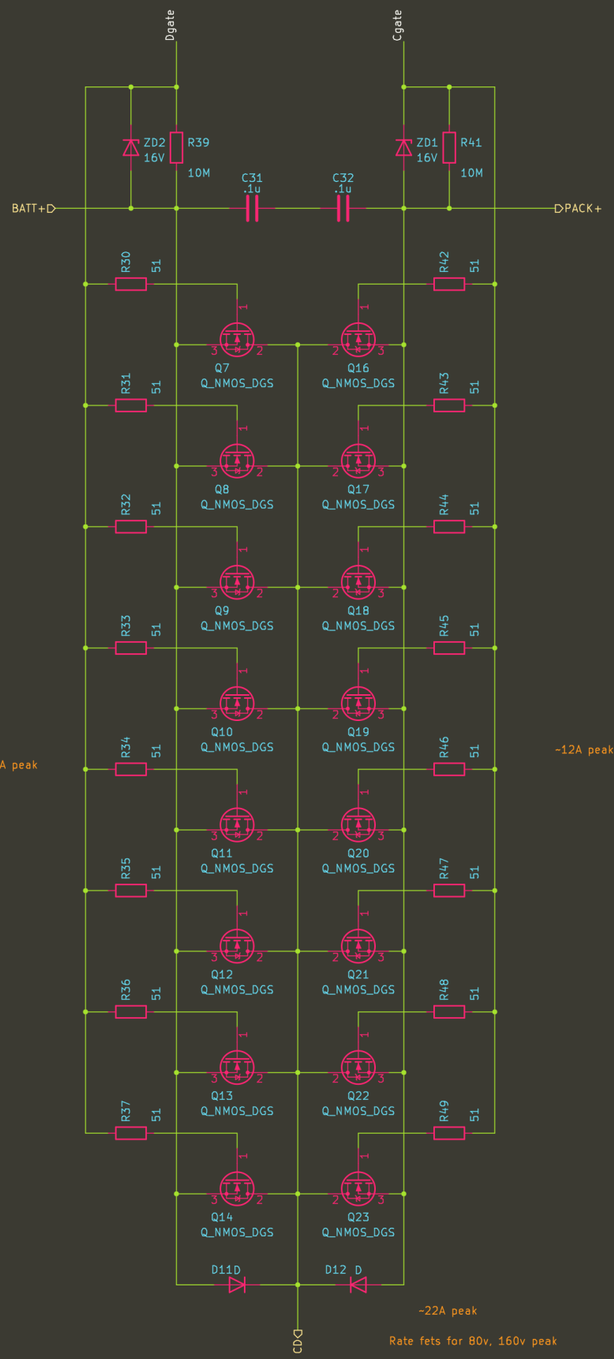
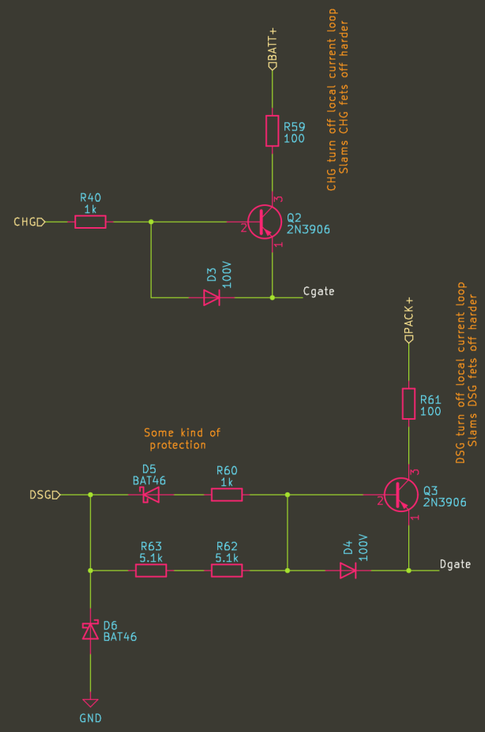
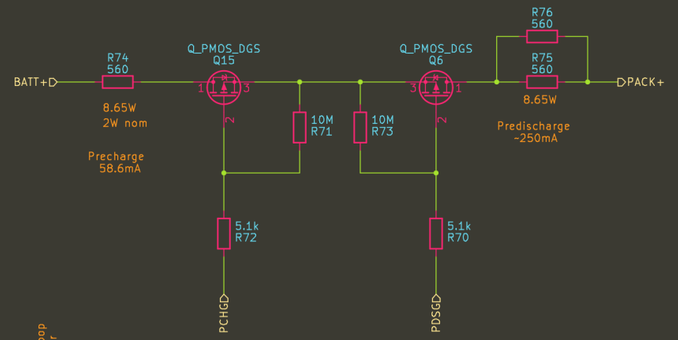
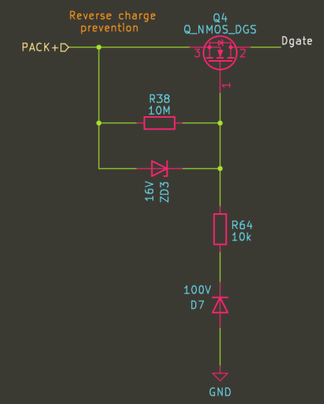
Size: B
Date:
Rev:
KiCad E.D.A. kicad 7.0.1
Id: 22/6









QTech BMS Dept		
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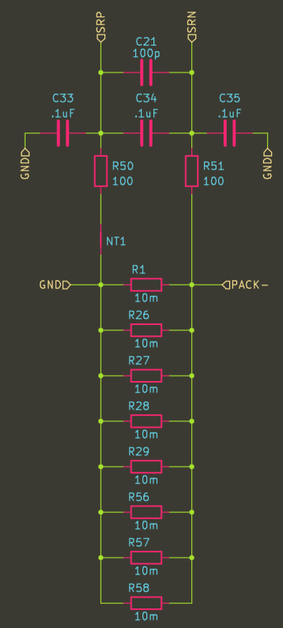
Title: High Side Fets		
Size: B	Date: 2022-10-30	Rev: Rev 0
KiCad E.D.A. kicad 7.0.1		Id: 26/6



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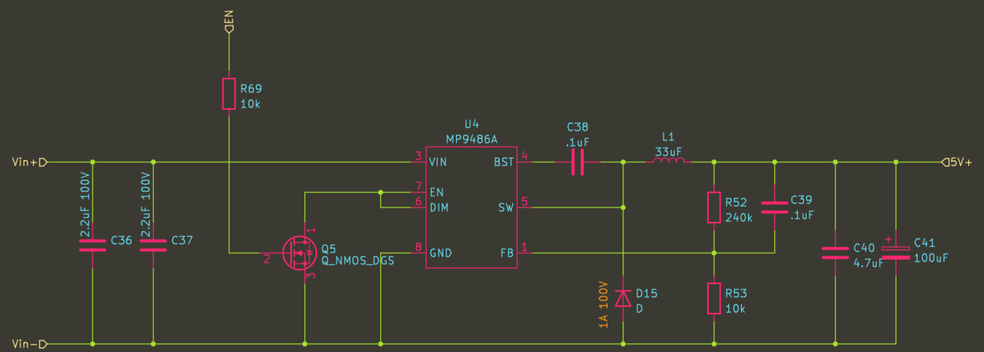
Title:

Size: B	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.1		Id: 27/6



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Title:

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