

Sheet: /BMS Protection Board/
 File: BMS Protection Board.kicad_sch

Title:

Size: A4

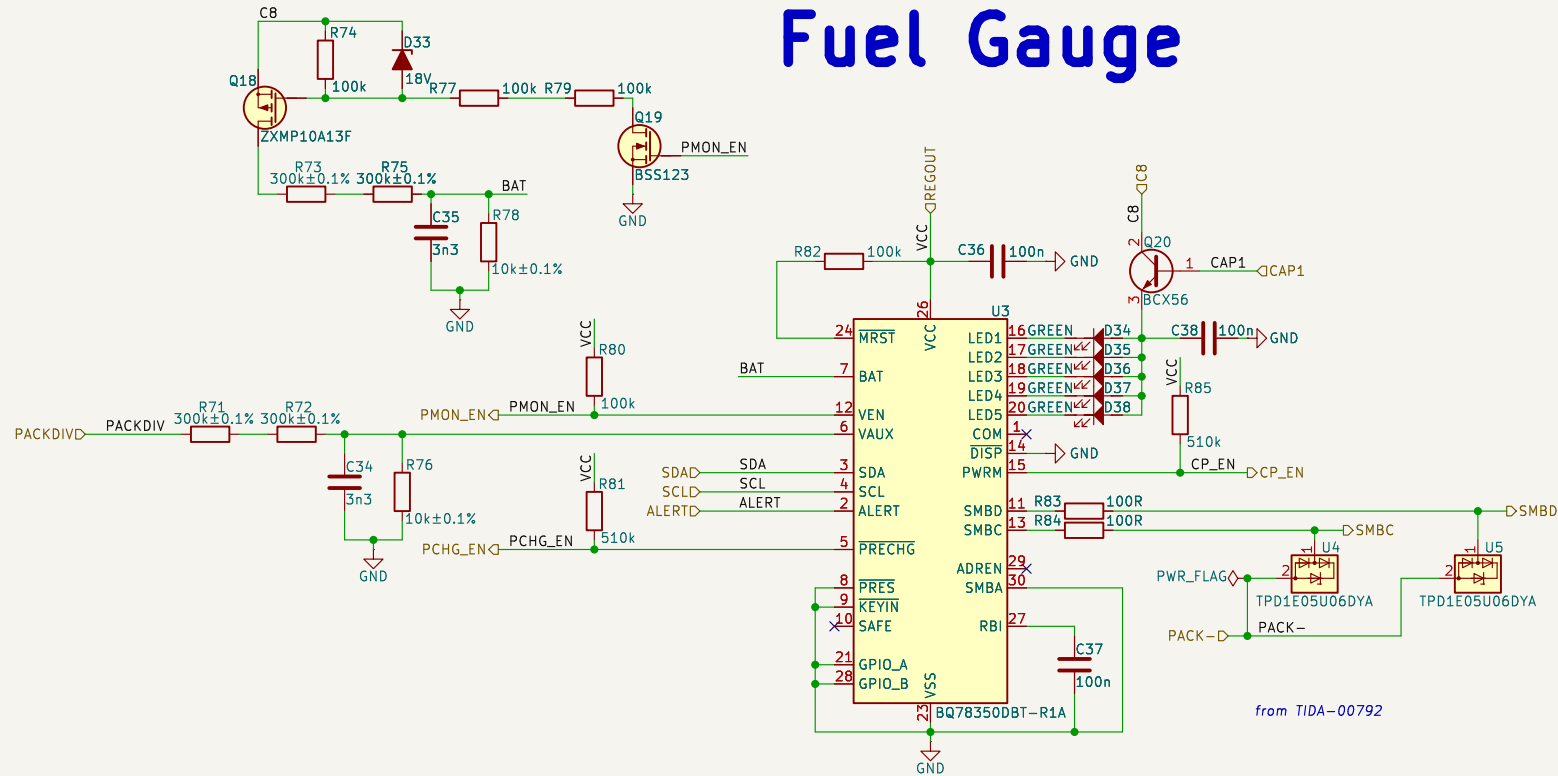
Date:

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Fuel Gauge



Sheet: /BMS Protection Board/Fuel Gauge/
File: Fuel Gauge.kicad_sch

Title:

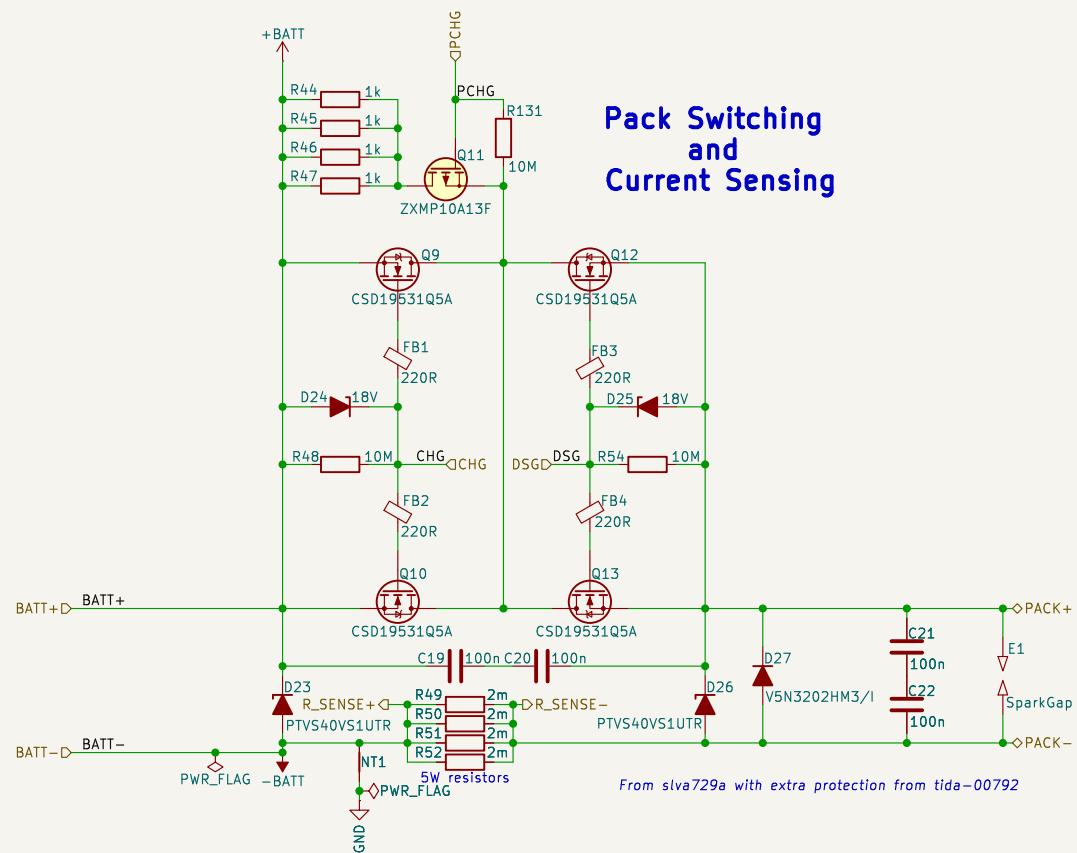
Size: A4

Date:

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Sheet: /BMS Protection Board/Pack Switching and Current Sensing/
 File: Pack Switching and Current Sensing.kicad_sch

Title:

Size: A4

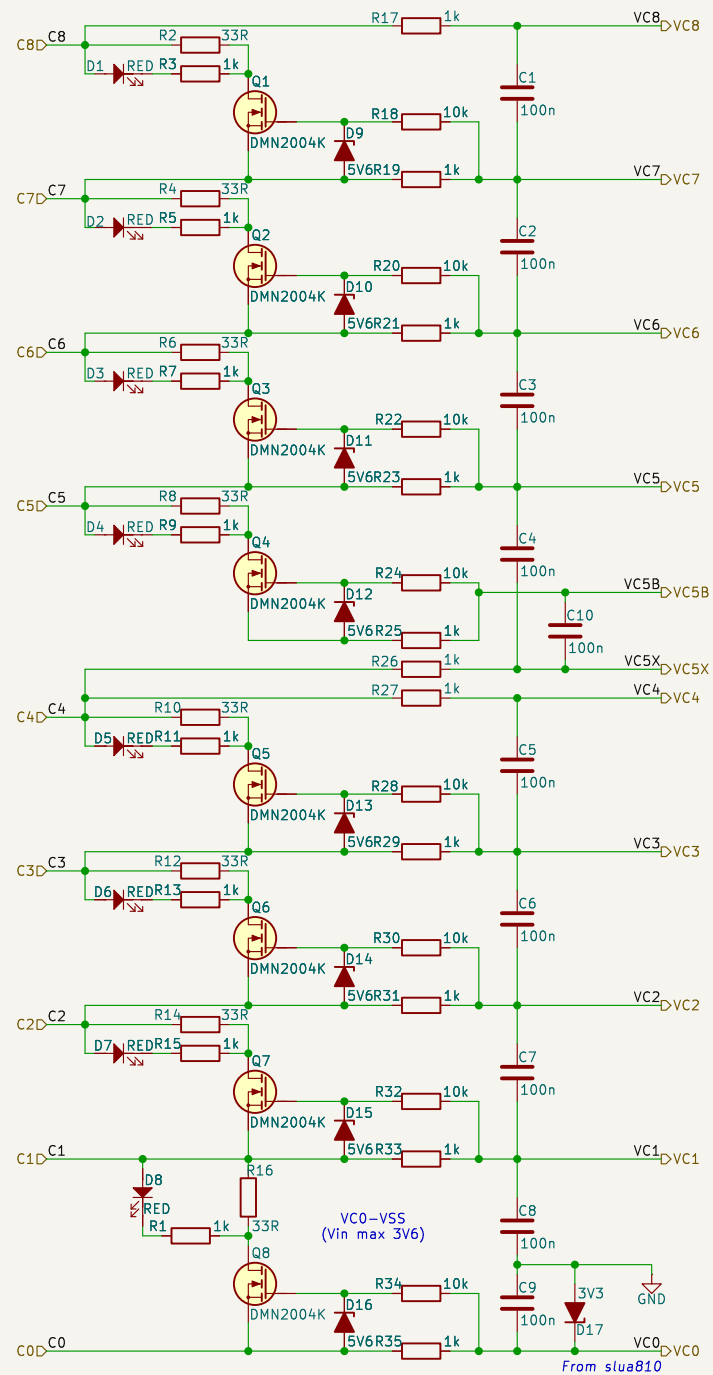
Date:

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Passive Balancing Circuit



Sheet: /BMS Protection Board/Passive Balancing Circuit/
File: Passive Balancing Circuit.kicad_sch

Title:

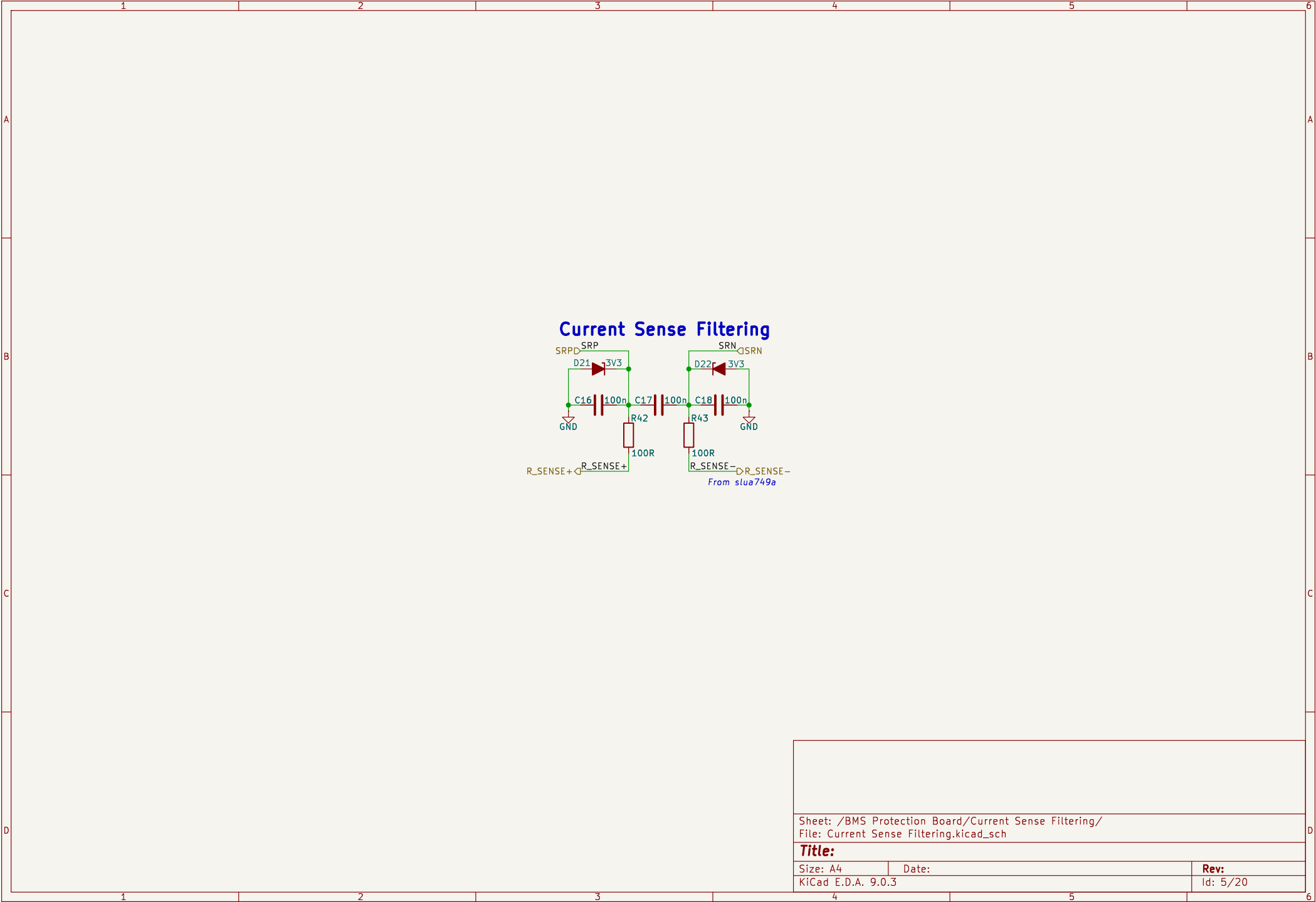
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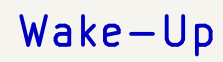
Date:

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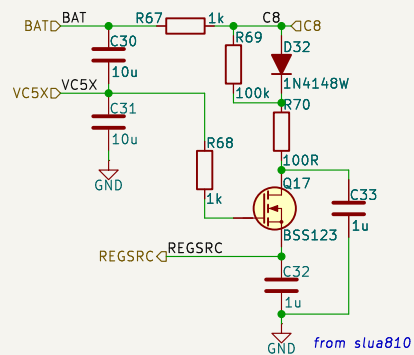
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Id: 7/20

High Voltage REGSRC Supply



Sheet: /BMS Protection Board/High Voltage REGSRC Supply/
File: High Voltage REGSRC Supply.kicad_sch

Title:

Size: A4

Date:

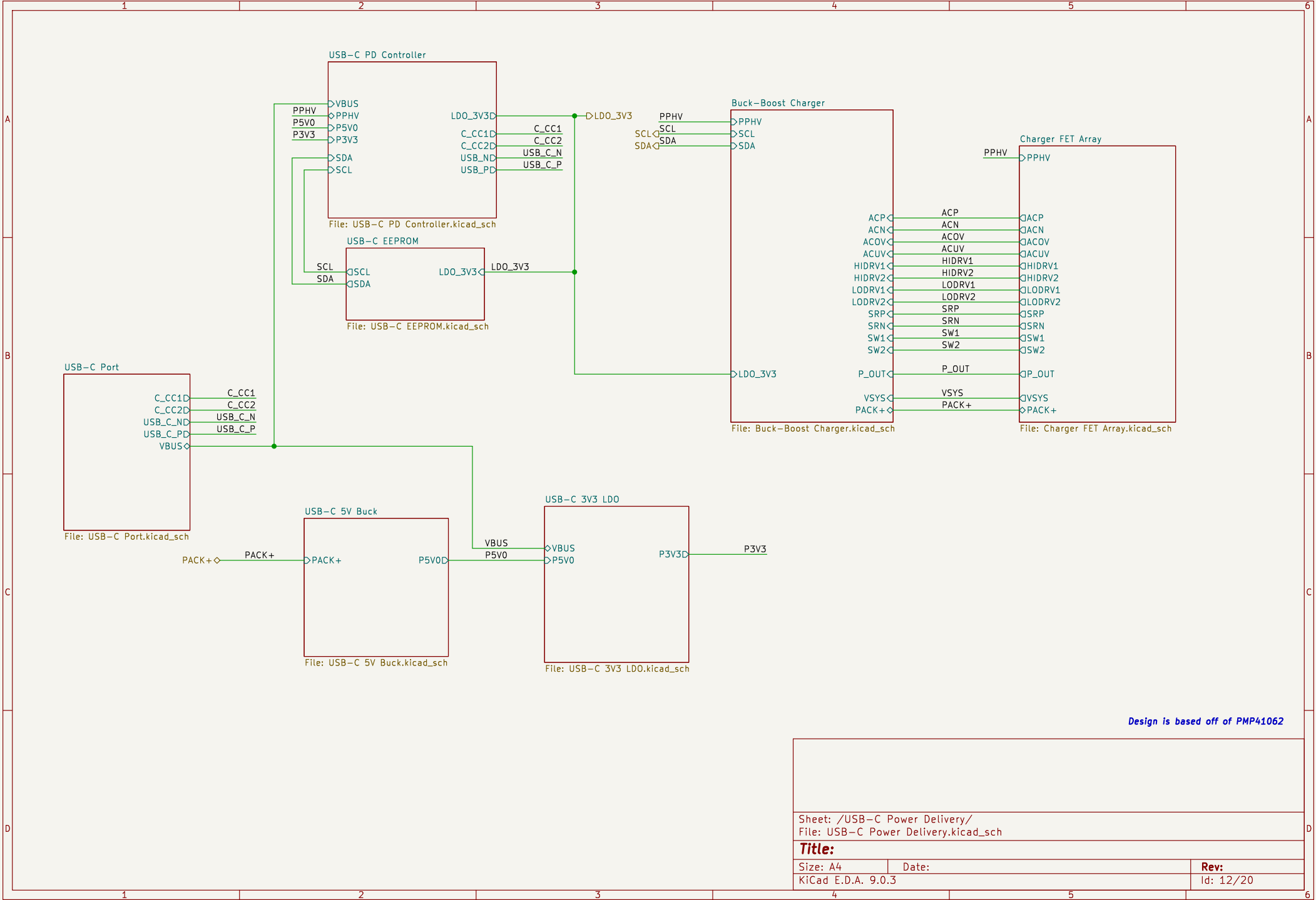
Rev:

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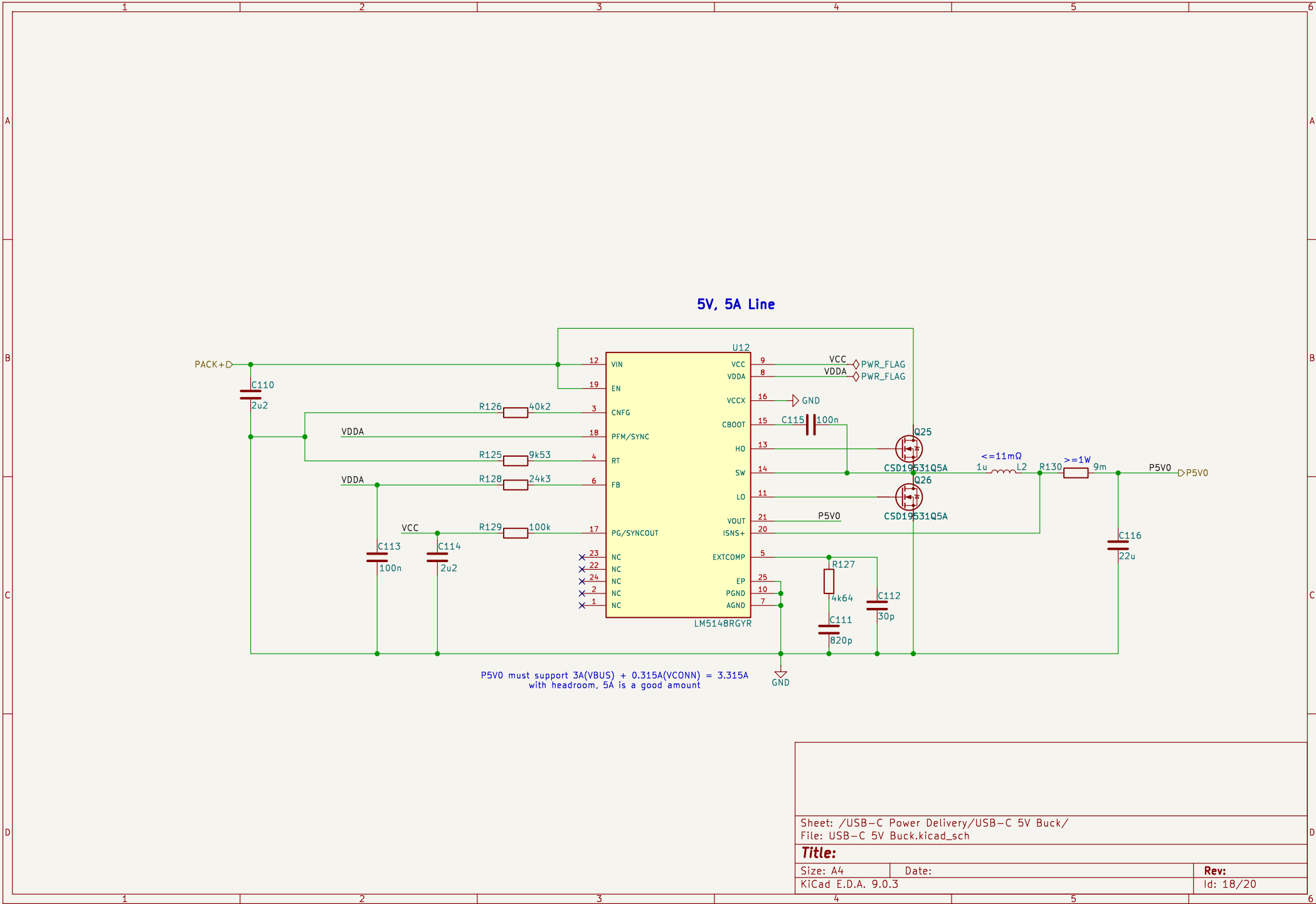
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File: BMS Thermistors.kicad_sch		
Title:		
Size: A4	Date:	Rev:
KiCad E.D.A. 9.0.3		Id: 9/20

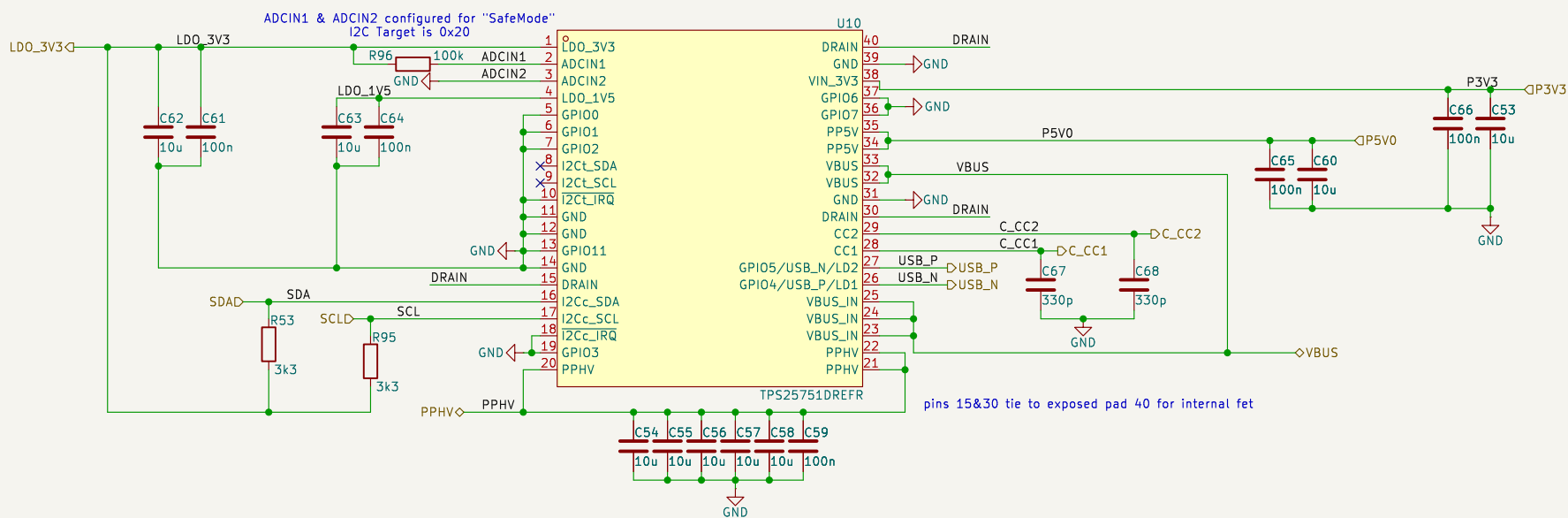


Design is based off of PMP41062

Sheet: /USB-C Power Delivery/ File: USB-C Power Delivery.kicad_sch		
Title:		
Size: A4	Date:	Rev:
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Sheet: /USB-C Power Delivery/USB-C PD Controller/
File: USB-C PD Controller.kicad_sch

Title:

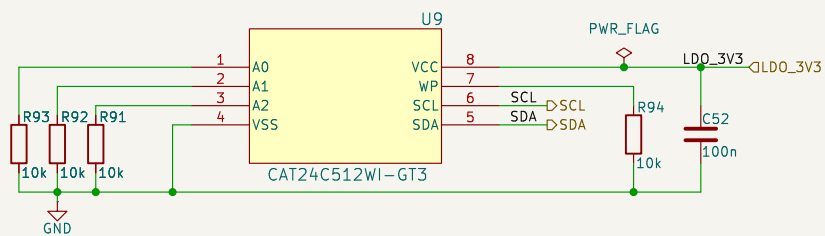
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Date:

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Sheet: /USB-C Power Delivery/USB-C EEPROM/
File: USB-C EEPROM.kicad_sch

Title:

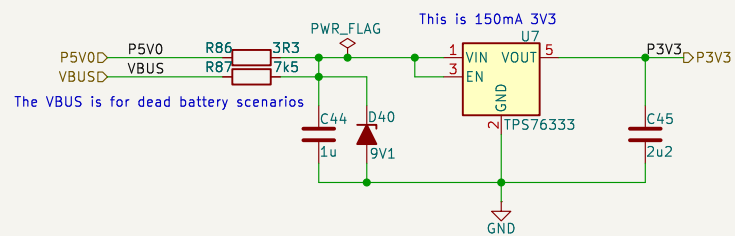
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Sheet: /USB-C Power Delivery/USB-C 3V3 LDO/
File: USB-C 3V3 LDO.kicad_sch

Title:

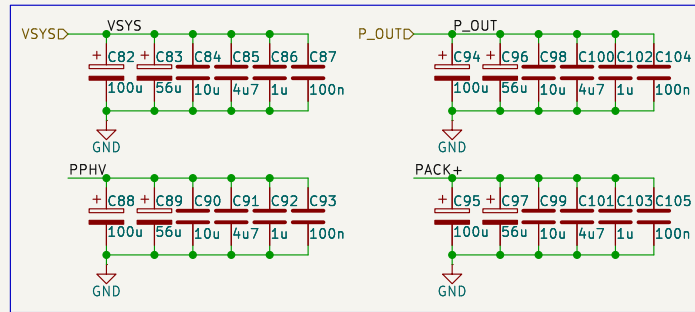
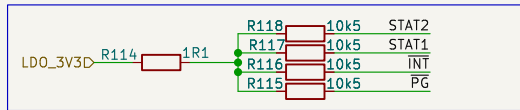
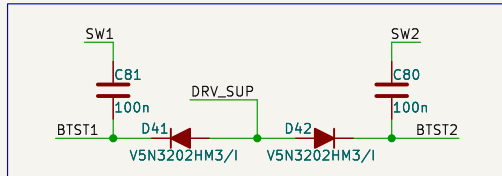
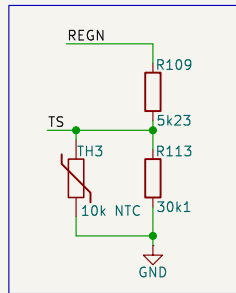
Size: A4

Date:

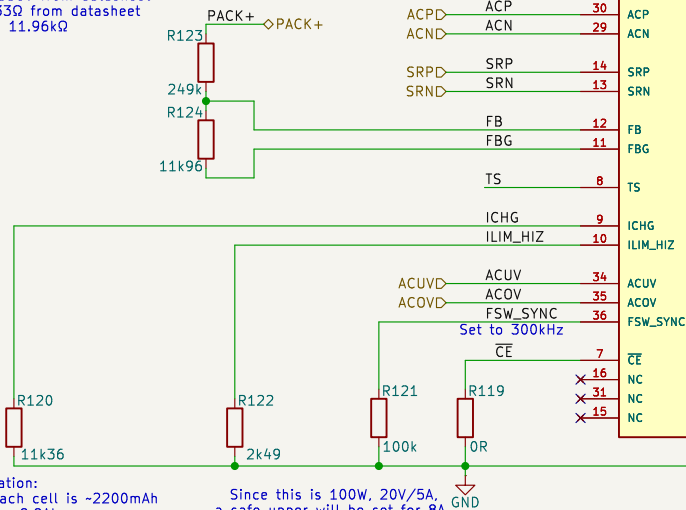
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Target Voltage = 8 cells * 4.2 V/cell = 33.6 V
 $R_{top} = 249k\Omega$ (from datasheet's recommendation)
 $R_{bot} = B_{top} * (V_{fb} / (V_{bat_reg} - V_{fb})) + R_{fbg}$
 $V_{fb}: 1.536V$ from datasheet
 $R_{fbg}: 33\Omega$ from datasheet
 $R_{bot} = 11.96k\Omega$



For my application:
 854P setup, each cell is ~2200mAh
 $4 * 2200mAh = 8.8Ah$

Setting charging at 0.5°C
 $I_{chg} = 8.8Ah * 0.5 = 4.4A$
 $R = 50Ak\Omega / 4.4A = 11.36k\Omega$

Since this is 100W, 20V/5A,
 a safe upper will be set for 8A
 using 5mΩ sense resistor:
 $R = 20Ak\Omega / 8A = 2.5k\Omega$

Sheet: /USB-C Power Delivery/Buck-Boost Charger/
 File: Buck-Boost Charger.kicad_sch

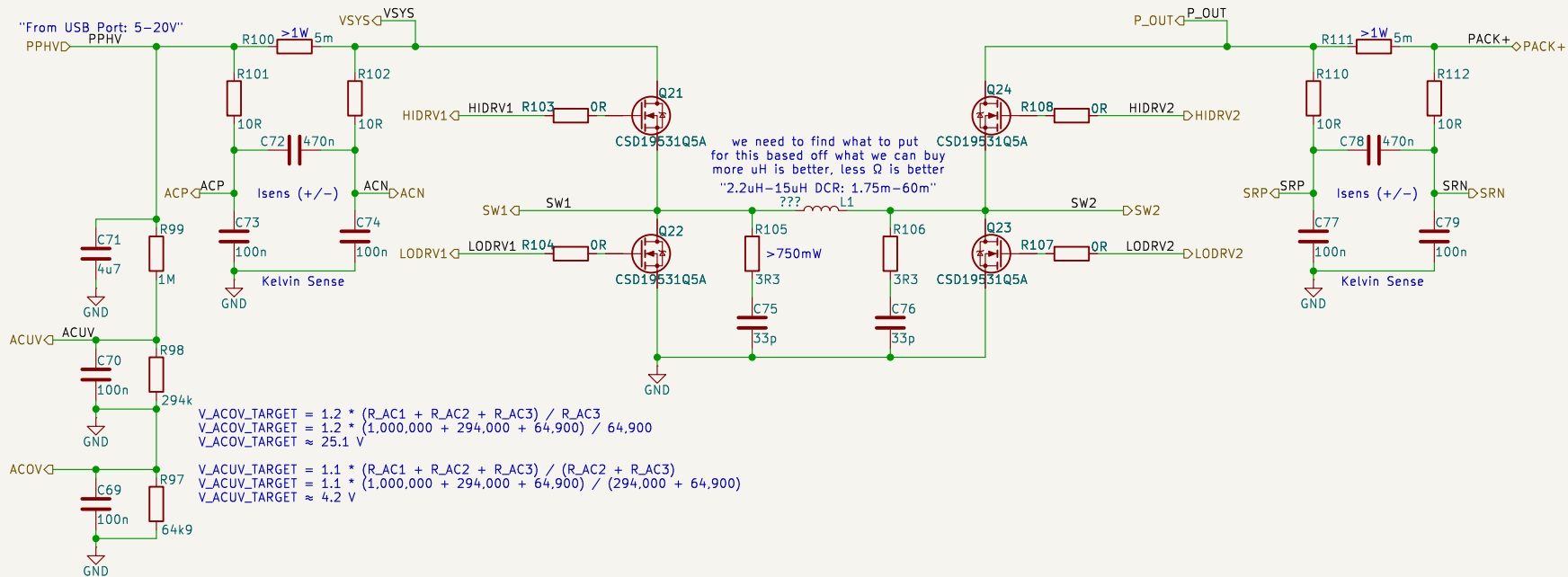
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Size: A4
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Sheet: /USB-C Power Delivery/Charger FET Array/
 File: Charger FET Array.kicad_sch

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123456

A

B

C

D

123456

A

B

C

D

◀PACK+

Sheet: /6V High Power Line/
File: 6V High Power Line.kicad_sch

Title:

Size: A4

Date:

KiCad E.D.A. 9.0.3

Rev:

Id: 20/20