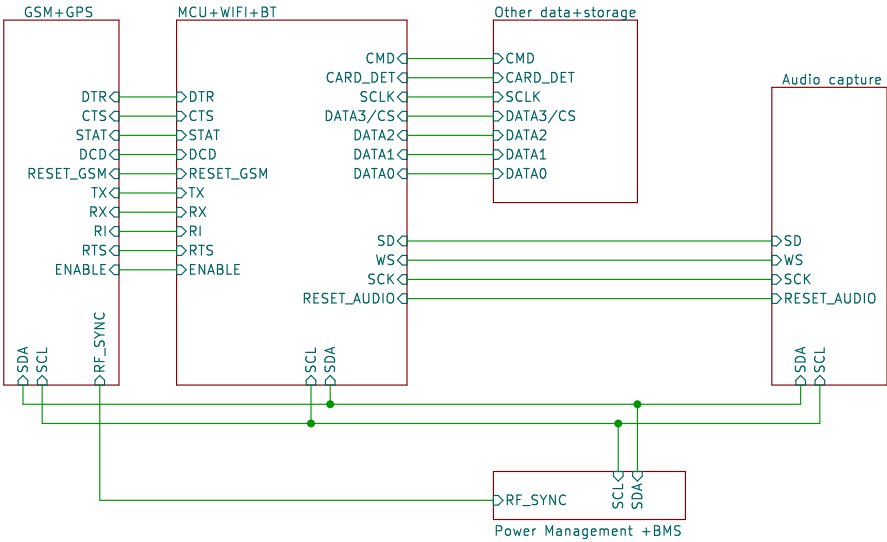
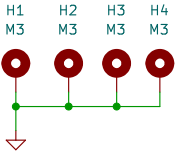


All SMD caps ceramic are 0603 16V X7R or better unless other notes are made  
All SMD resistors are 0603  
Stack up:  
4 layer FR4 sig gnd gnd+sig sig  
All non power traces should aim to be 50 ohm single ended impedance  
unless other requirements are in place  
Delata(T) aimed for is 20C or less



# CASE+ GRAPHICS + MECHANICAL

- FID1 Fiducial
- FID2 kicad
- FID3 Case
- FID4 Cell
- FID5 Cell
- FID10 scale
- FID6 garbage
- FID7 Lid
- FID8 Cell
- FID9 Cell



**LEVEL SHIFTERS**

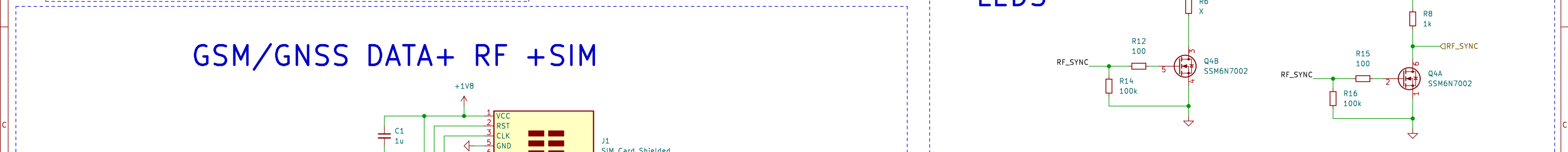
The schematic shows four NPN transistors (Q2A, Q2B, Q3A, Q3B) configured as level shifters. The input signals are SDAD, SCL\_INT, PRWKEY, and STATD. The output signals are SDA\_INT, SCL\_INT, and STAT\_INT. The transistors are connected to +3V3 and +3V8 supply rails through various resistors (R1-R13). The output of the level shifters is connected to the base of the LEDs (D1-D4) through resistors (R4-R22). The LEDs are connected to +3V8 supply rails.

**LEDs**

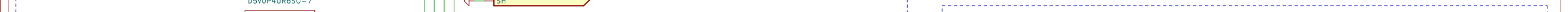
The schematic shows four LEDs (D1, D2, D3, D4) connected to the output of the level shifters. The LEDs are connected to +3V8 supply rails through resistors (R4-R22). The output of the level shifters is connected to the base of the LEDs (D1-D4) through resistors (R4-R22).

**Legend:**

- Q1A SSM6N7002
- Q1B SSM6N7002
- Q5A SSM6N7002
- Q5B SSM6N7002
- D1 LED\_Small
- D2 LED\_Small
- D3 LED\_Small
- D4 LED\_Small



D5  
DSV004/UD650-7



GNNS/GSM POWER

Spark Fun runs them at 4.137V  
Adafruit directly from Li Ion/LiPo  
range: 3.4V - 4.4V

protection zener here 5v1 or less

super\_cap?

DA este in serie in mod intentionat

3v3 TVS goes here

VCHG NEEDS 4.3-7V

5V-DIY

5V-in2

5V-in2

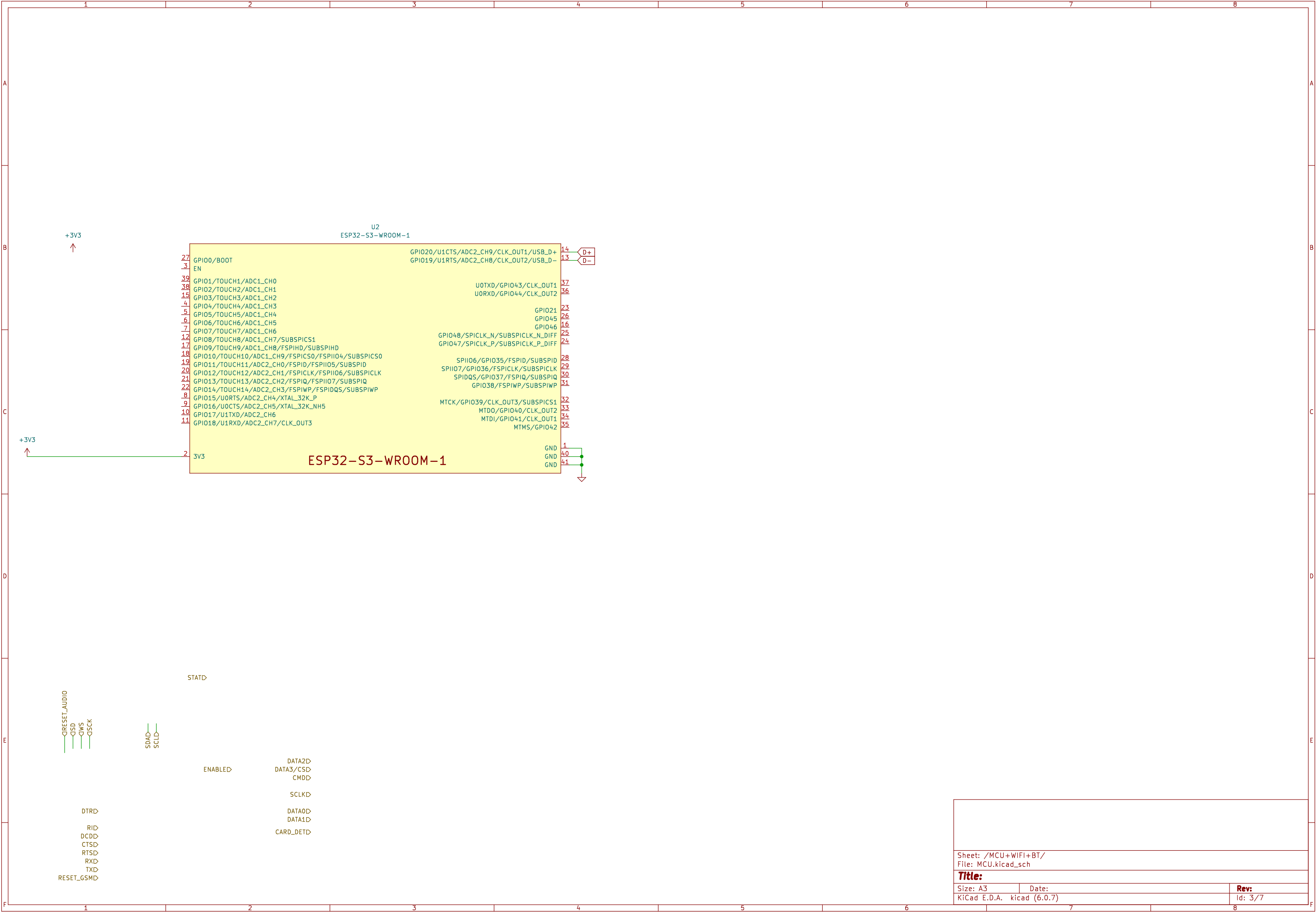
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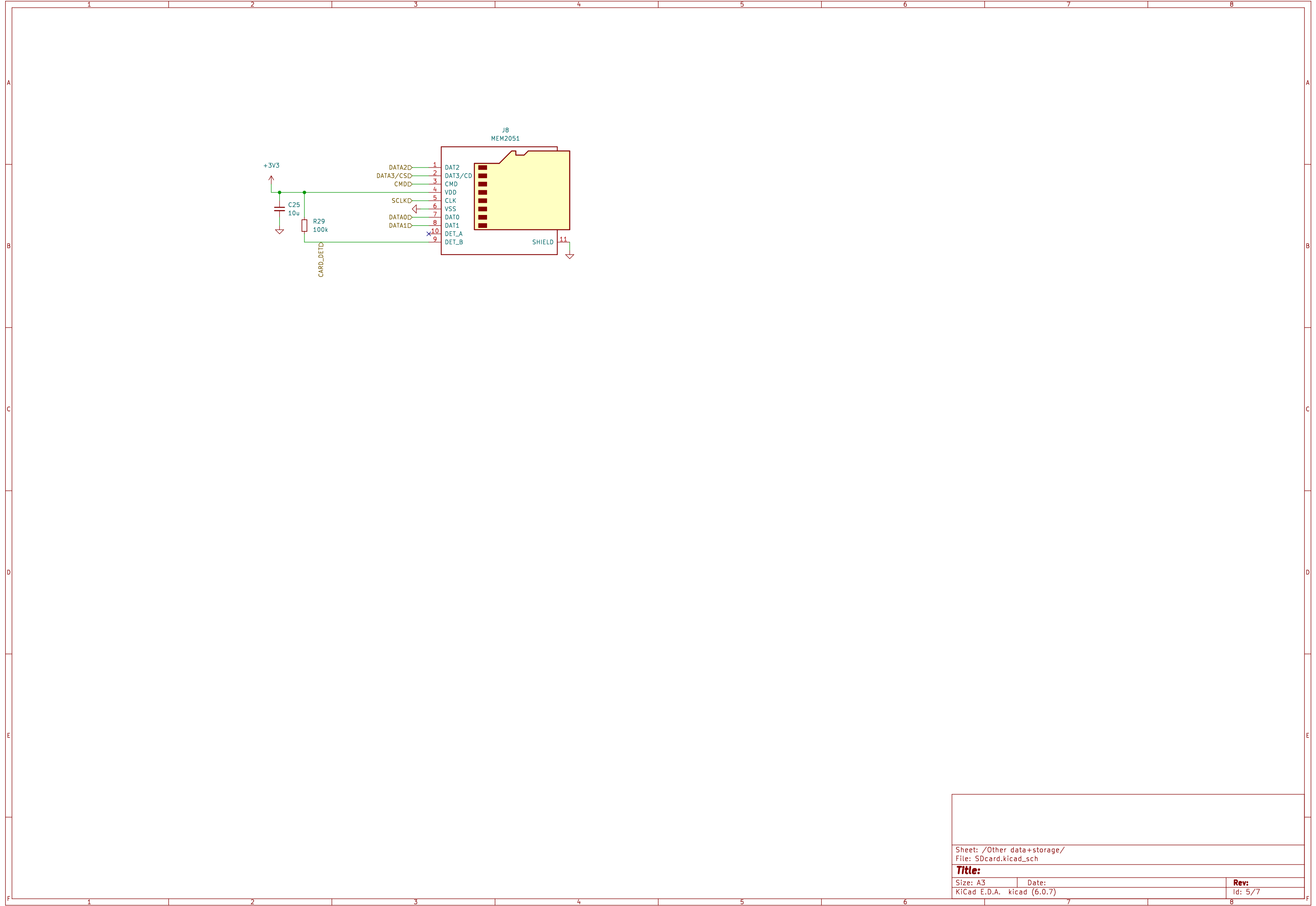
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KiCad E.D.A. kicad (6.0.7)		Id: 2/7

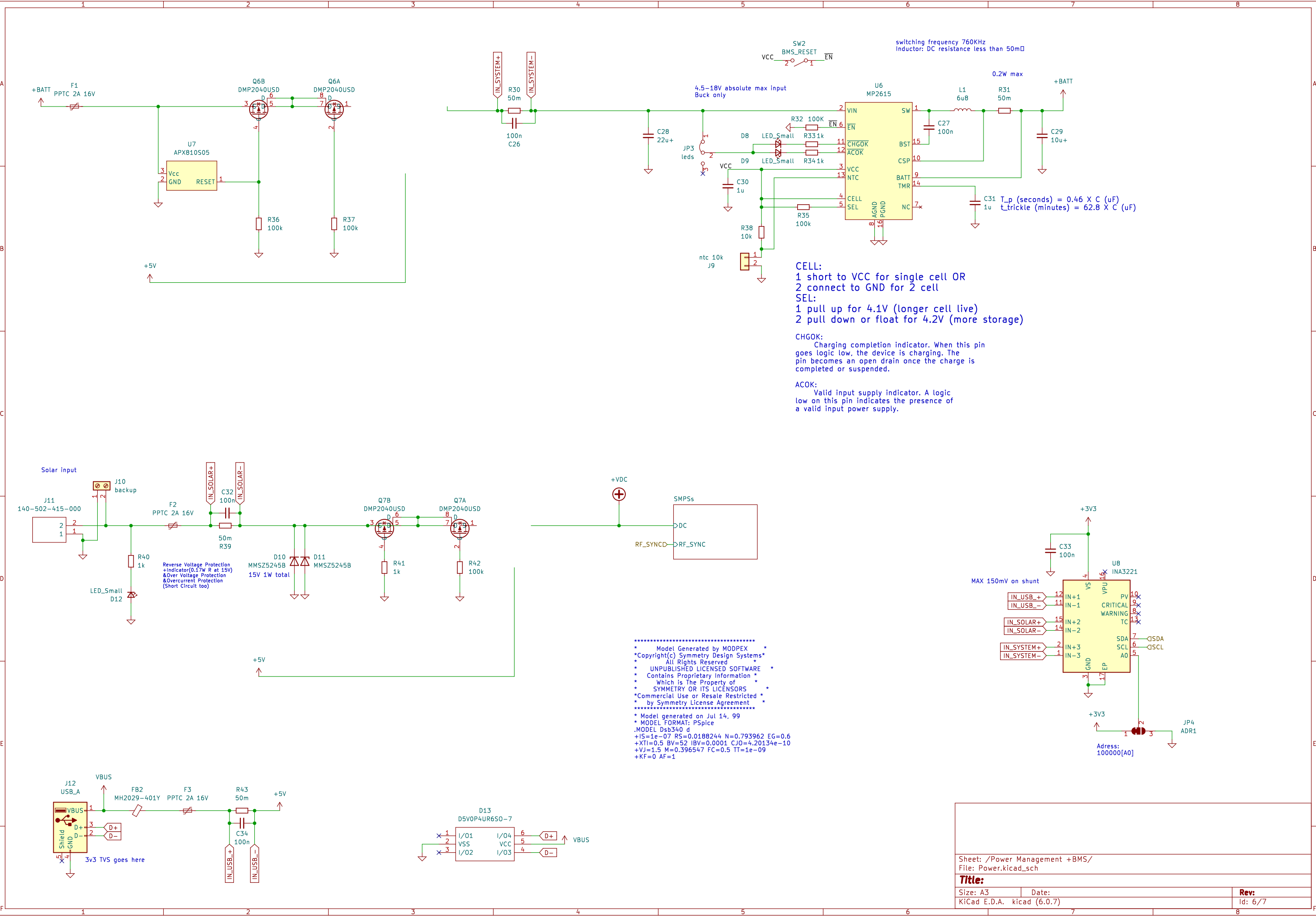
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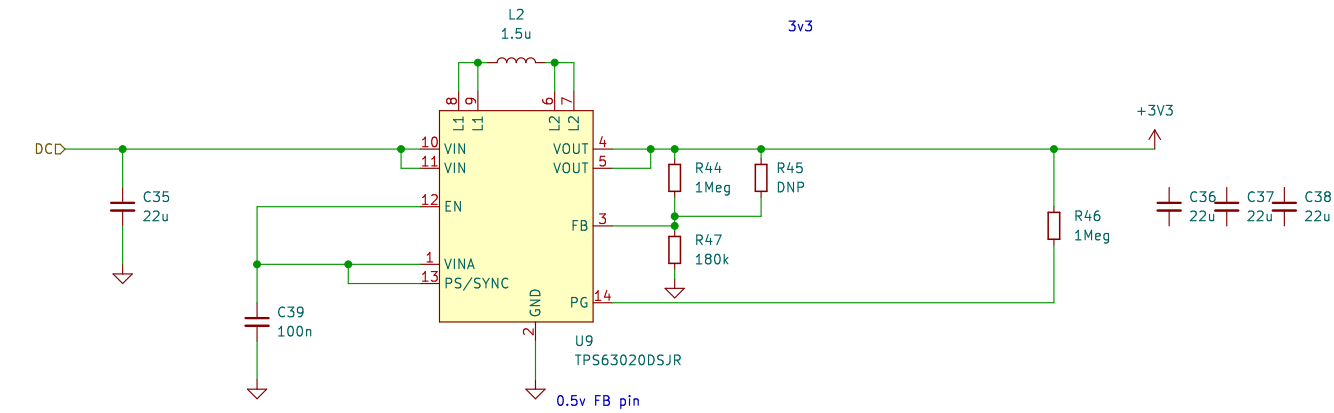
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<b>Title:</b>		
Size: A3	Date:	<b>Rev:</b>
KiCad E.D.A. kicad (6.0.7)		Id: 4/7





3V-3V3



3V8-4V

