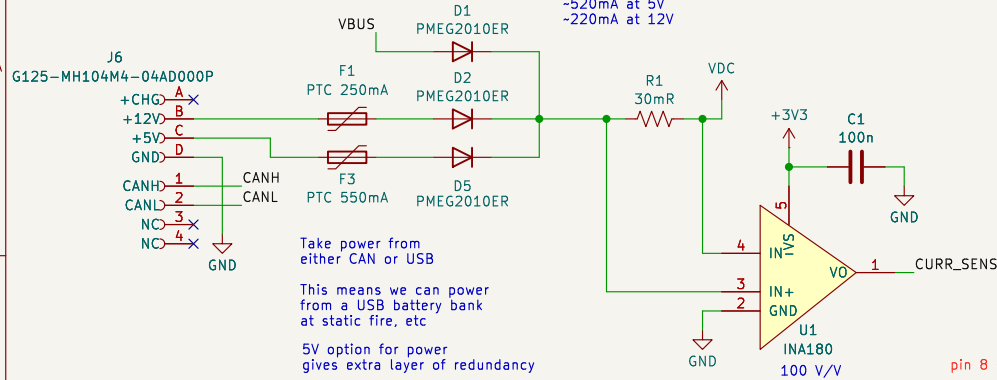


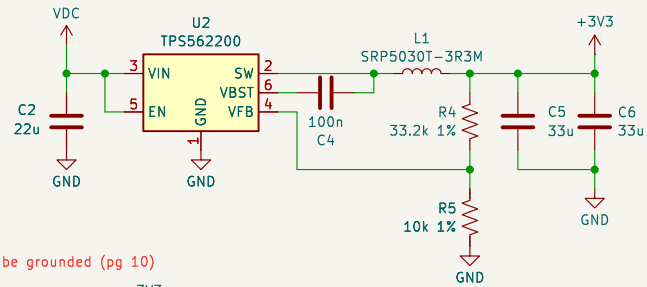
these current values are based on board with camera

Max Power Usage:
 MCU: 620mA | CAN Tranceiver: 60mA | Flash: 30mA | Total: 710mA
 Total / 91.3% efficiency for buck = -780mA at 3.3V
 -520mA at 5V
 -220mA at 12V



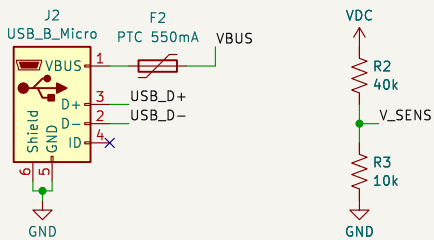
Take power from either CAN or USB
 This means we can power from a USB battery bank at static fire, etc
 5V option for power gives extra layer of redundancy

1A max. Webench: <https://webench.ti.com/power-designer/switching-regulator/customize/6?noparams=0>

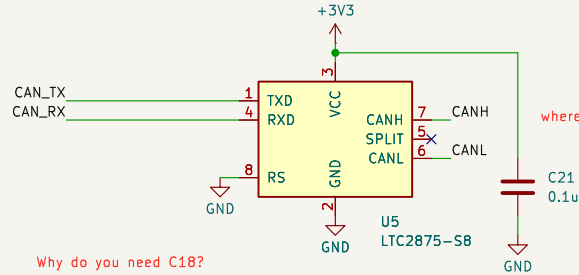


pin 8 should be grounded (pg 10)

these current values are based on board with camera



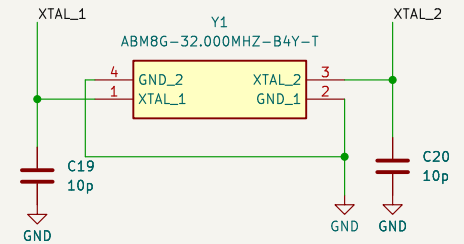
VDC ranges from 5V - 13V
 Divide-by-5 to map 13V to 2.6V



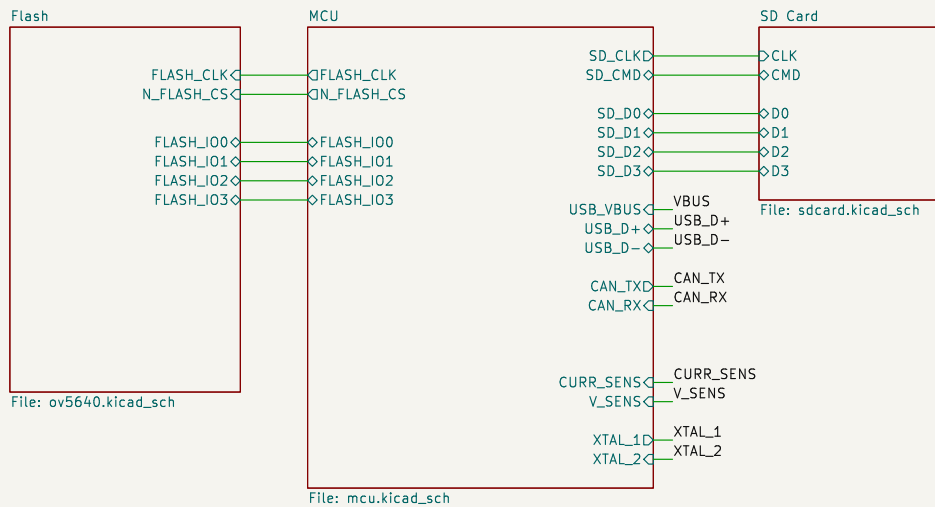
where does value for C3 come from? seems unnecessary based on pg 10

Why do you need C18?

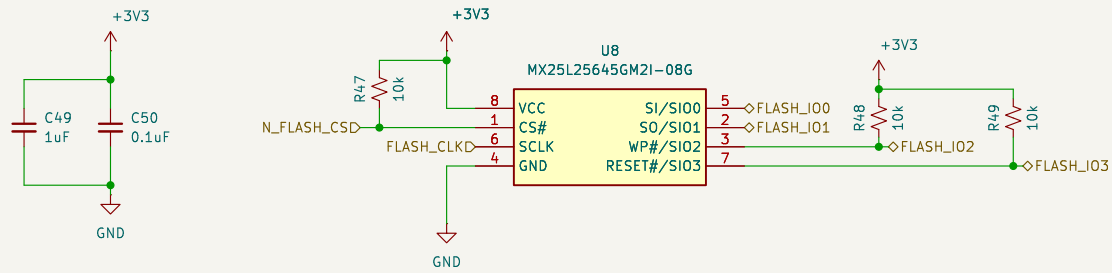
unground mounting holes this is getting mounted to metal and we dont want to ground the entirety of the tank



$C19 = C20 = 2 * (CL - Cstray)$
 $CL = 10pF, Cstray = 5pF$
 (CL not specified, standard value of 10pF according to datasheet)
 $C19 = C20 = 10pF$
<https://ecsxtal.com/crystal-load-capacitance-calculator/>



Sheet: /		Date:	
File: camera.kicad_sch			
Title:			
Size: A4	Date:		Rev:
KiCad E.D.A. 9.0.0			Id: 1/4



Sheet: /Flash/
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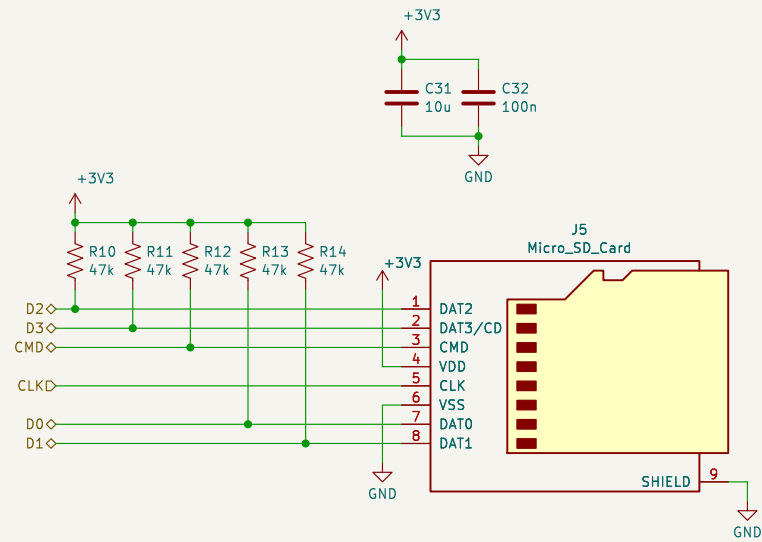
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Date:

Rev:

Id: 3/4



Sheet: /SD Card/
 File: sdcad.kicad_sch

Title:

Size: A4
 KiCad E.D.A. 9.0.0

Date:

Rev:
 Id: 4/4