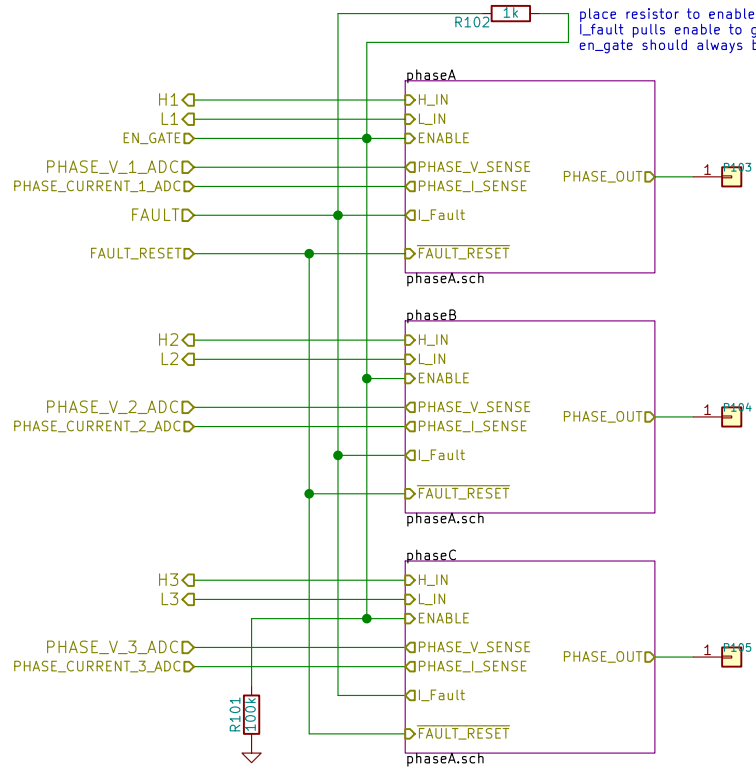
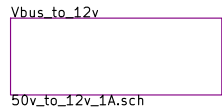
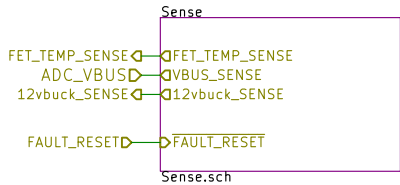
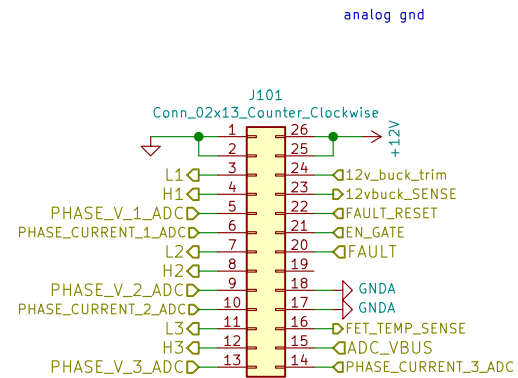
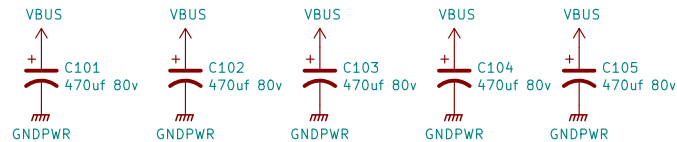
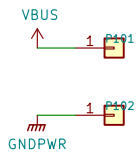


pins:  
phase: 15  
vbus  
temp  
12v stuff :2( 1sns, 1gd): 2  
gnd, 2xsignal, gd gnd :3  
  
total so far: 22



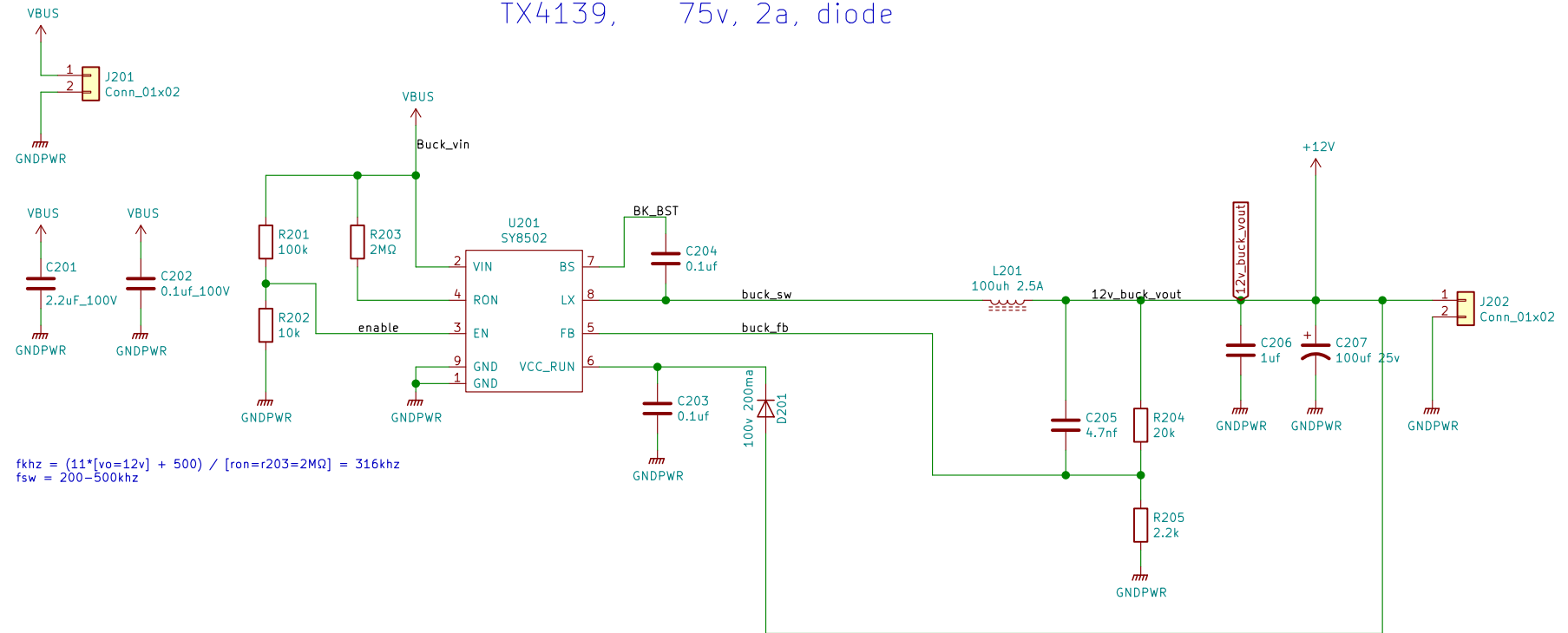
12v power mcu (1Amp) (from different header?)  
12v from mcu power gate drivers  
12v voltage sense  
vbus sense



- MK103 Mounting\_Hole
- MK104 Mounting\_Hole
- MK101 Mounting\_Hole
- MK102 Mounting\_Hole
- MK105 Mounting\_Hole
- MK106 Mounting\_Hole

design for 1a out, 13 – 60vin

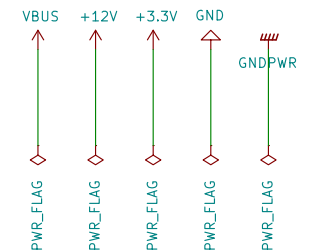
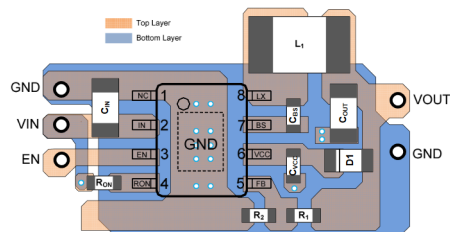
alternates:  
SY8502FCC, 85v, 1a, synchronous  
TX4139, 75v, 2a, diode



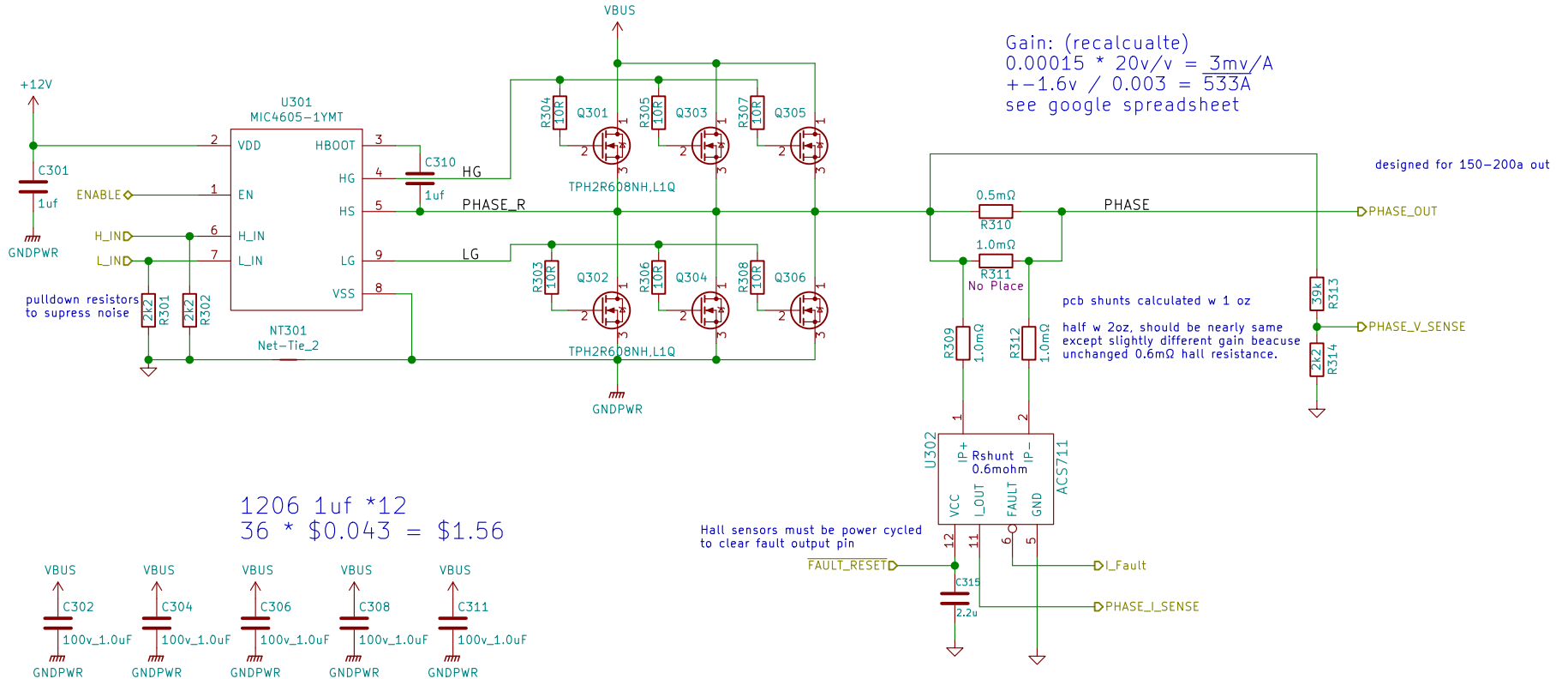
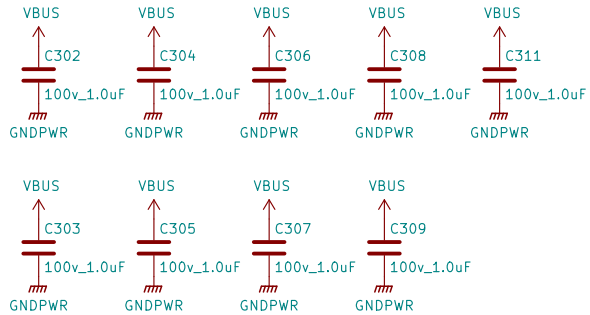
$$V_{out} = 1.2 \cdot (1 + R_{top}/R_{gnd})$$

$$1.2 \cdot (1 + (20k/2.2k)) = 12.11v$$

$$10.8v/22.2k = 49\mu A$$

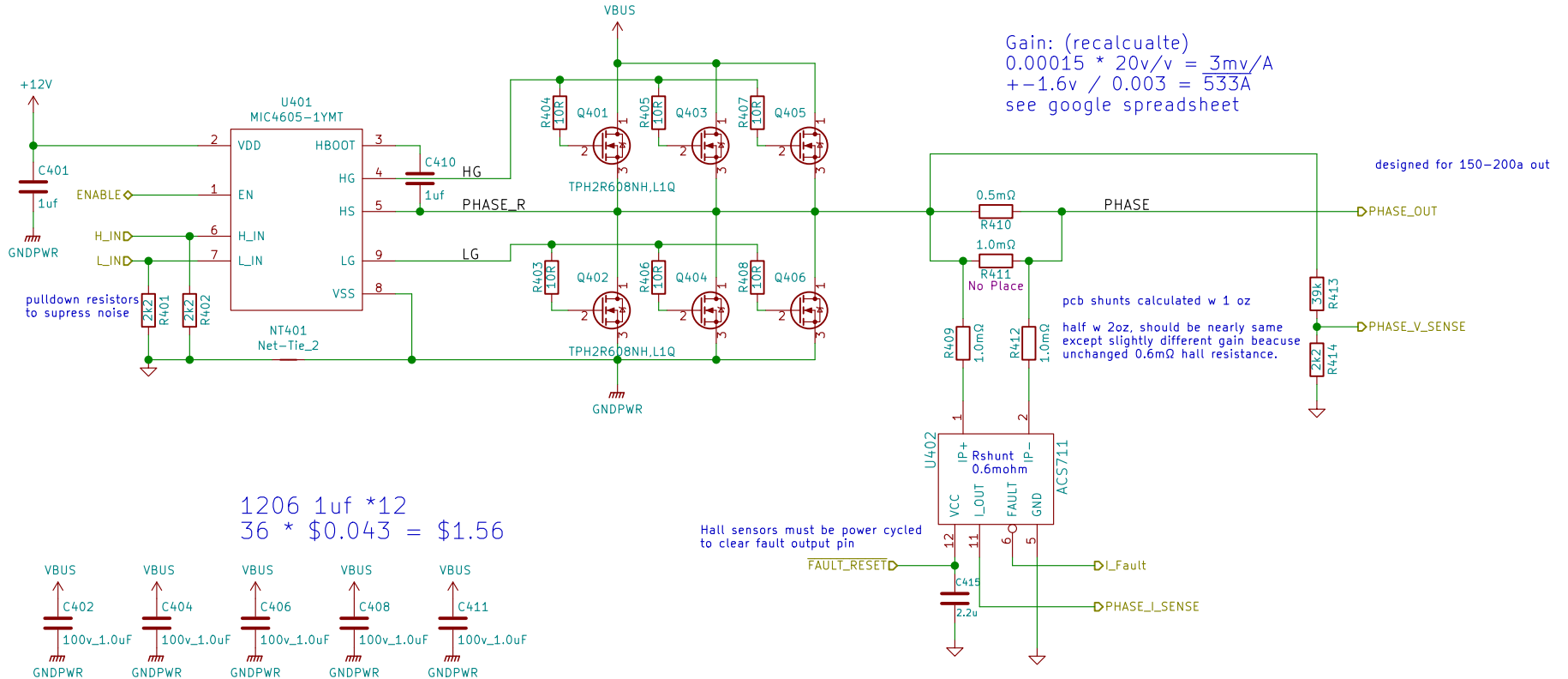
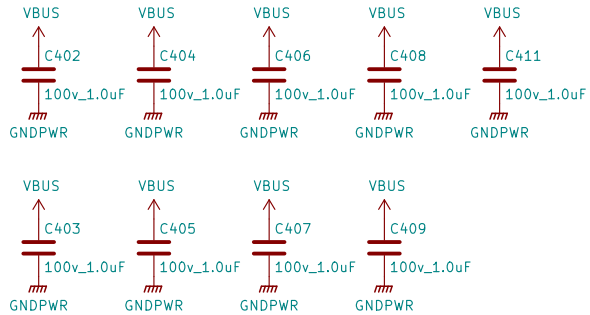


Mosfet replacements:  
TPH2R608NH, 75v, 2.60mΩ, bottom cool  
TPW2R508NH, 75v, 2.50mΩ, top cool  
TPW1R306PL, 60v, 1.29mΩ, top cool


$$\frac{1206 \text{ uf} \times 12}{36} \times \$0.043 = \$1.56$$


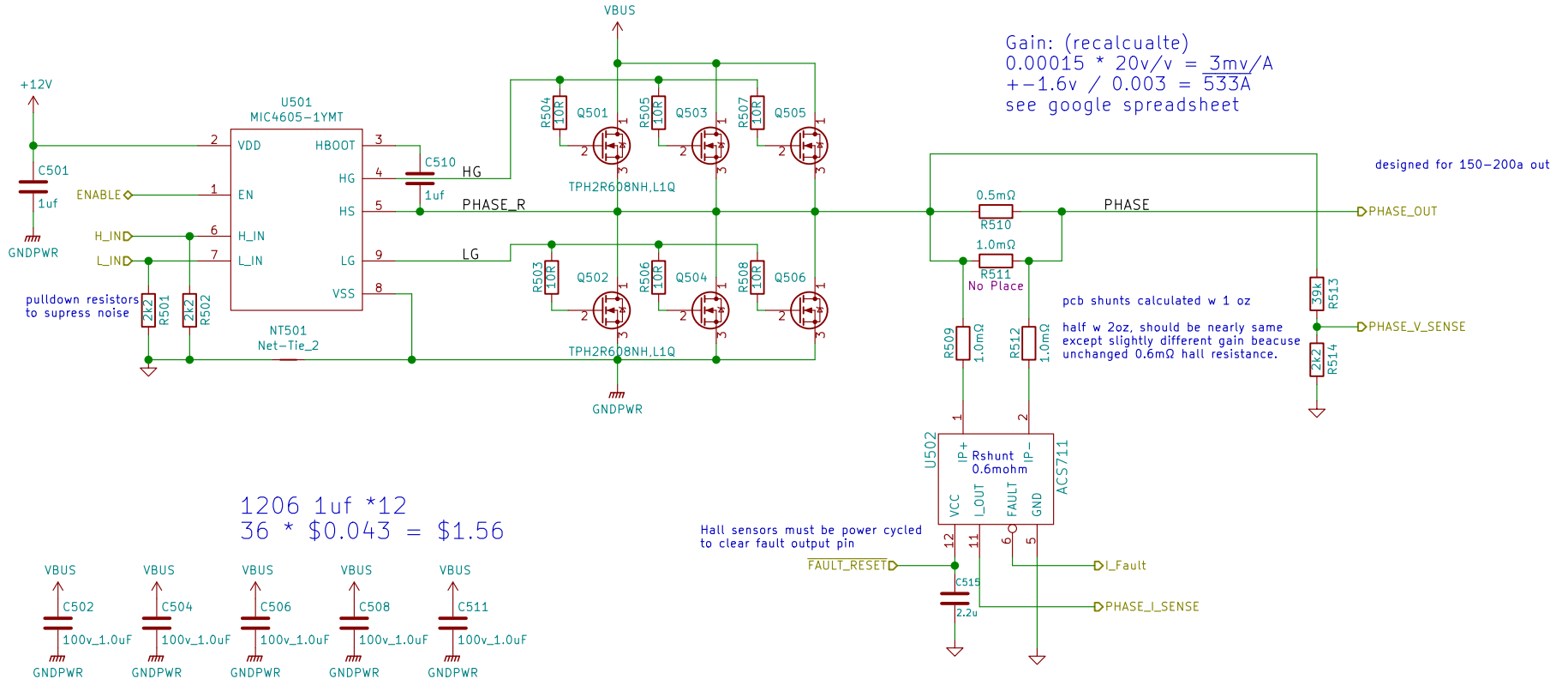
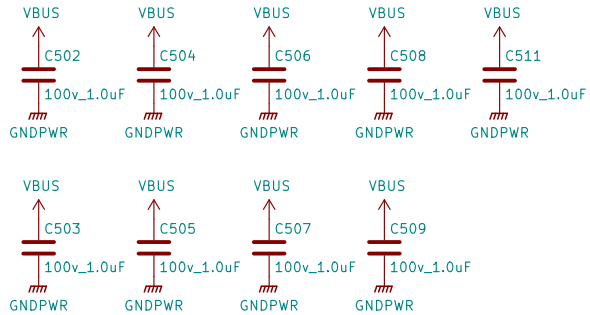
shunt / bypass calculations here:  
[https://docs.google.com/spreadsheets/d/1lMaP7\\_49MW8FMV-AsPd1GYy8oDyRuPlwMkiMwLlhNU/edit#gid=0](https://docs.google.com/spreadsheets/d/1lMaP7_49MW8FMV-AsPd1GYy8oDyRuPlwMkiMwLlhNU/edit#gid=0)

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