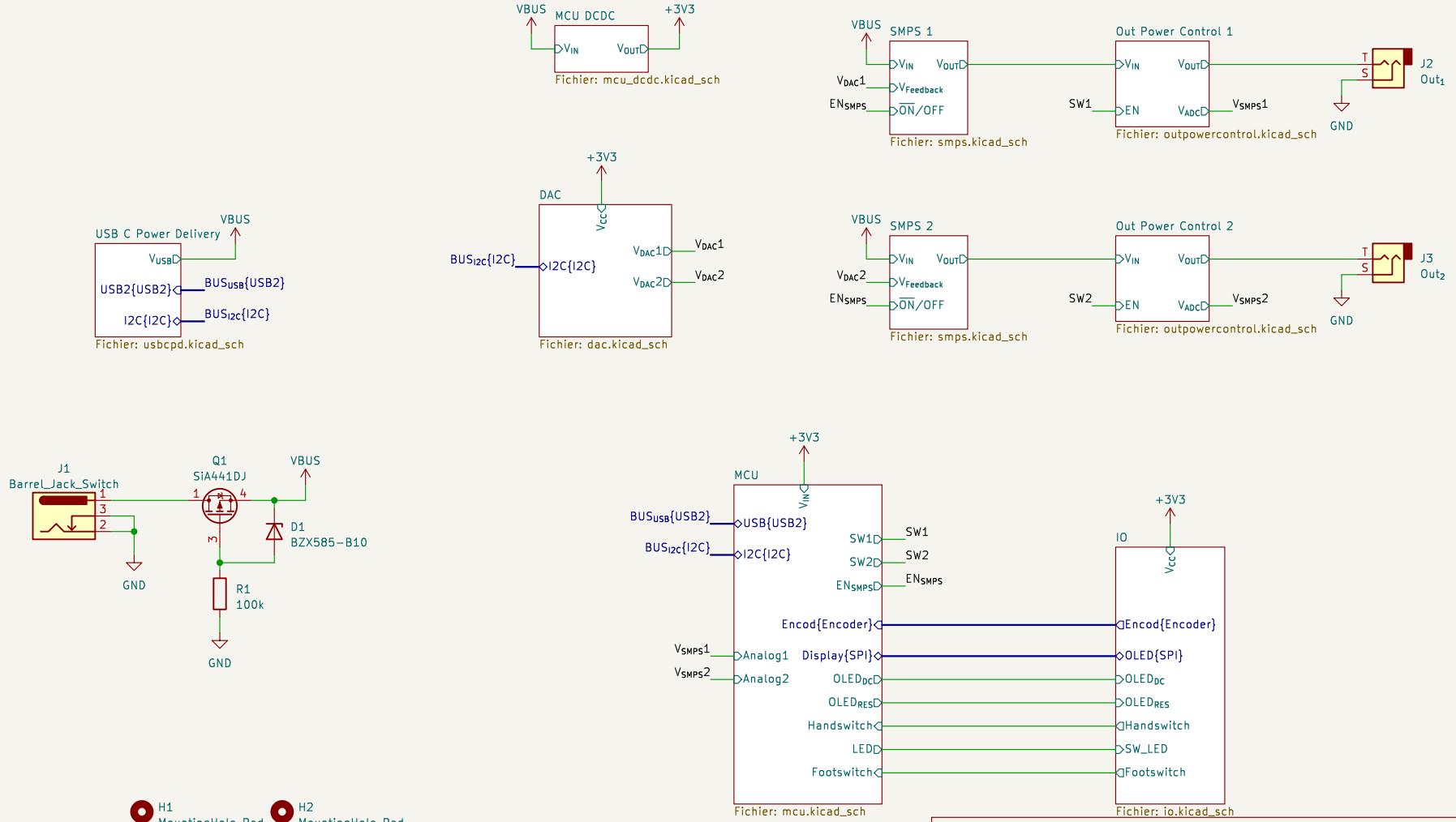
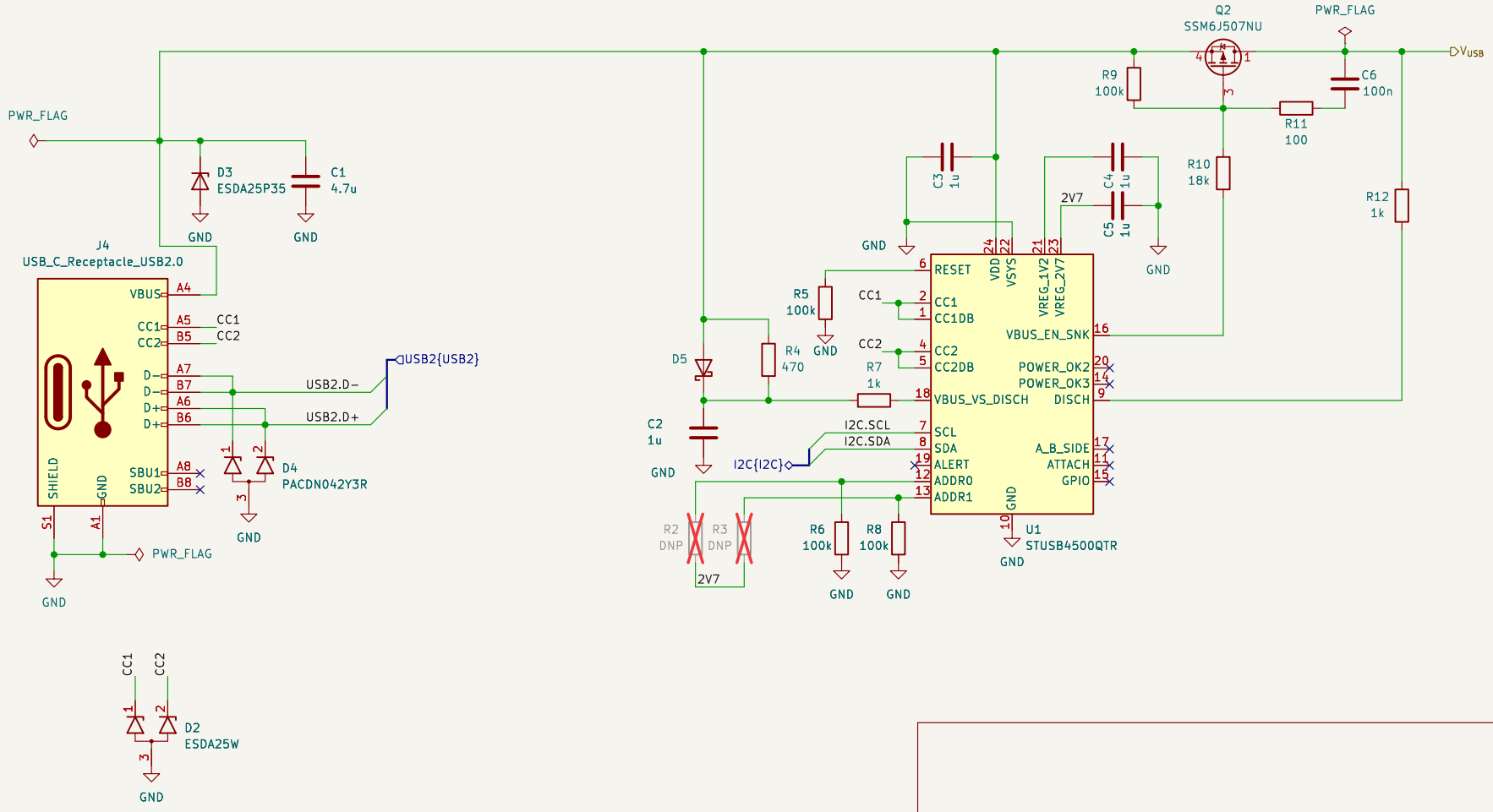


Sheet: /
File: Tattoo_Supply.kicad_sch

Title: Tattoo Power Supply

Size: A4	Date:	**Rev: V1.0**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 1/10



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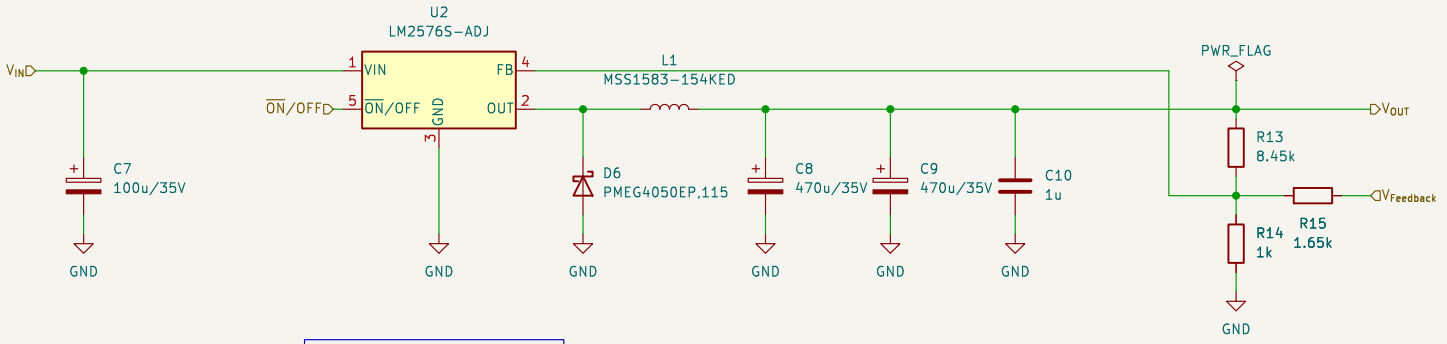
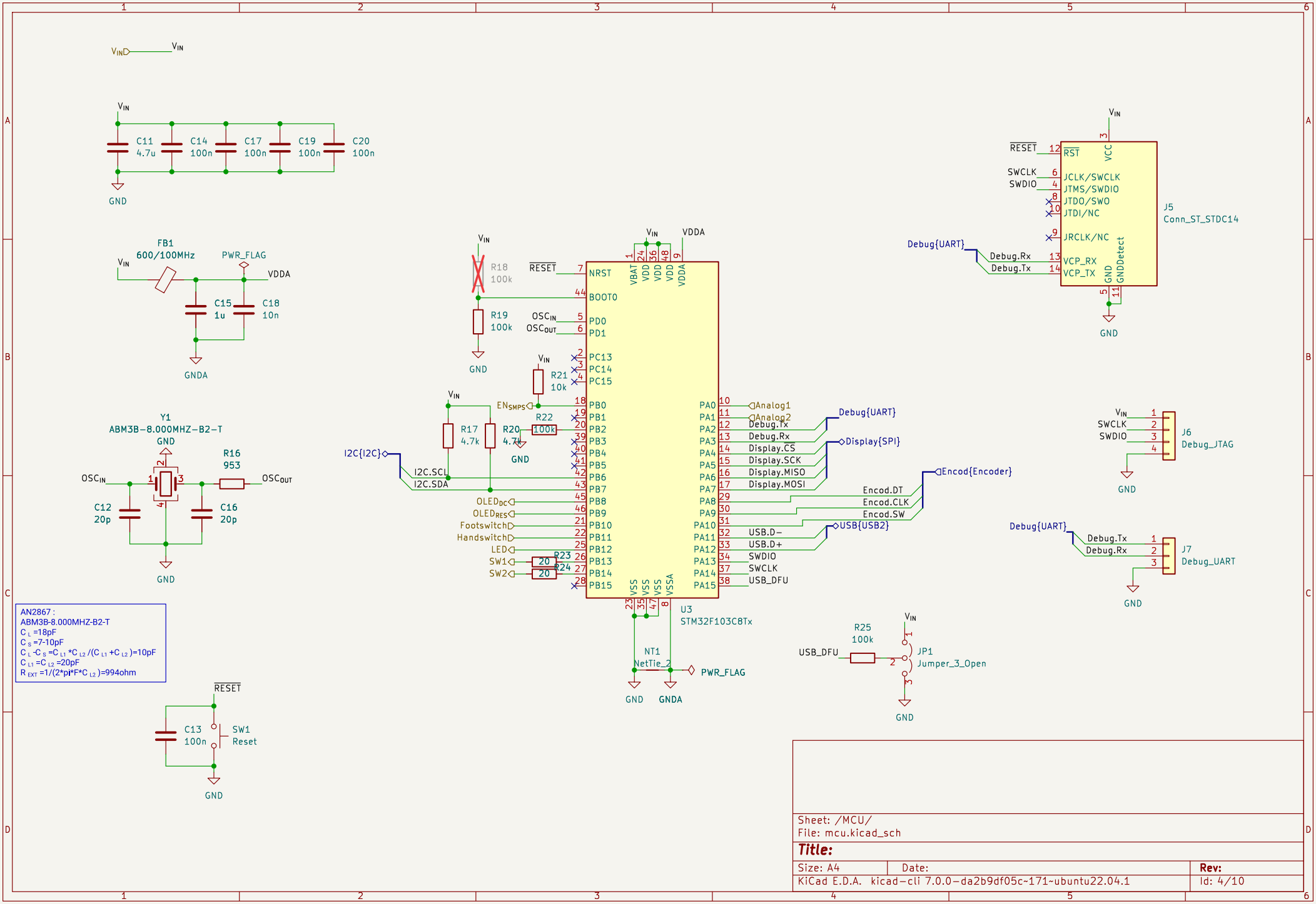
File: usbcpd.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 2/10



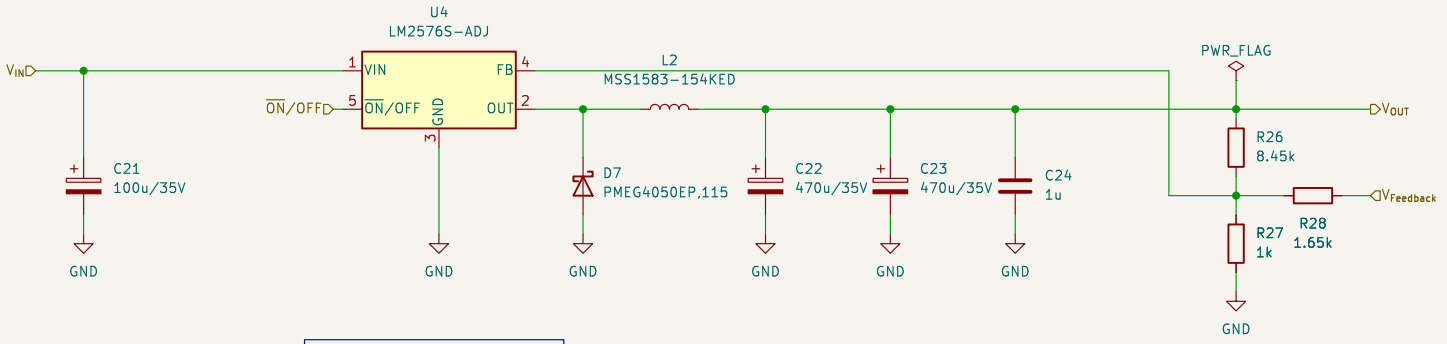
For L :
E*T=(V_{IN} -V_{OUT} *(V_{OUT} /V_{IN})*(1000/52)
With V_{IN} = 20V
E*T(max) = 96.154 V*us at V_{OUT} =10V
L = 150uH
I_{MAX} =1.15*3 = 3.45A

Check Python Notebook for Resistors calculations

Sheet: /SMPS 2/		
File: smps.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 3/10



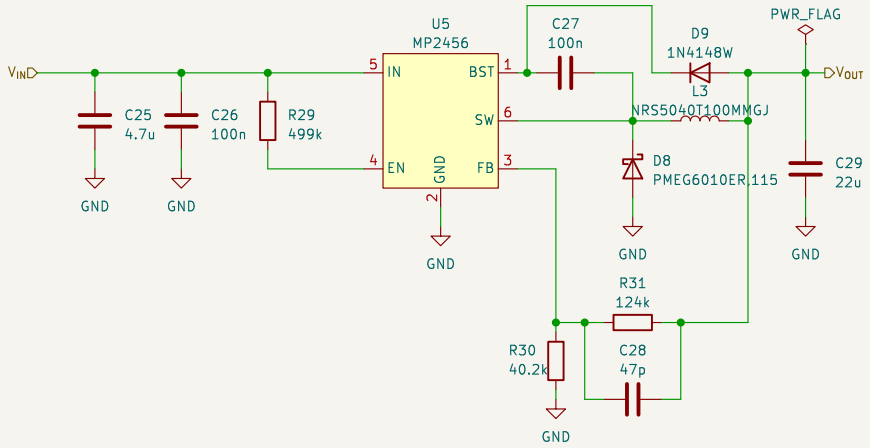
Sheet: /MCU/		
File: mcu.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 4/10



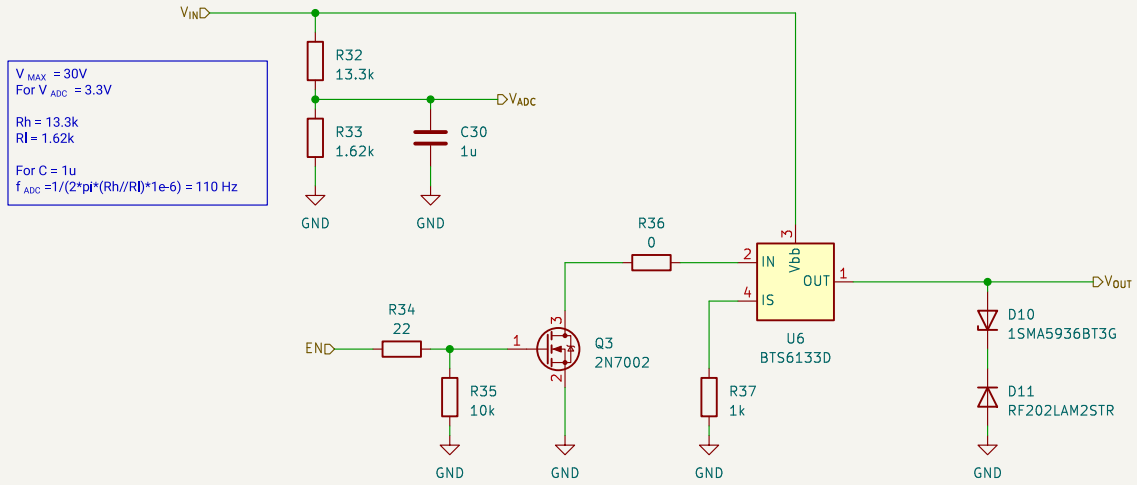
For L :
E*T=(V_{IN} -V_{OUT} *(V_{OUT} /V_{IN})*(1000/52)
With V_{IN} = 20V
E*T(max) = 96.154 V*us at V_{OUT} =10V
L = 150uH
I_{MAX} =1.15*3 = 3.45A

Check Python Notebook for Resistors calculations

Sheet: /SMPS 1/		
File: smps.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 5/10

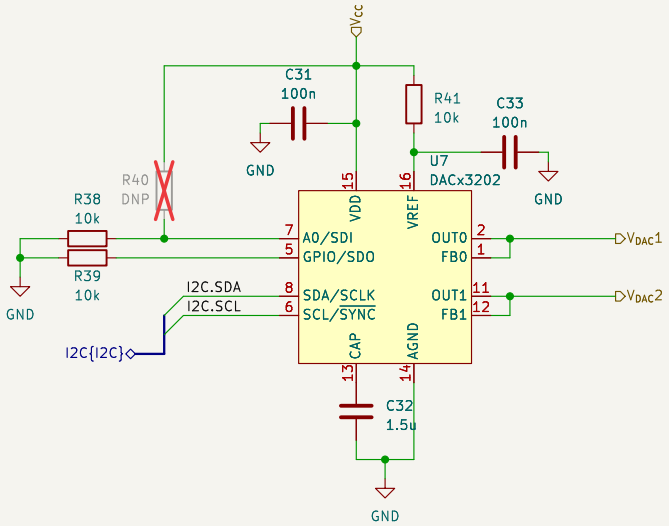


Sheet: /MCU DCDC/		
File: mcu_dcdc.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 6/10



Sheet: /Out Power Control 1/		
File: outpowercontrol.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 6/10

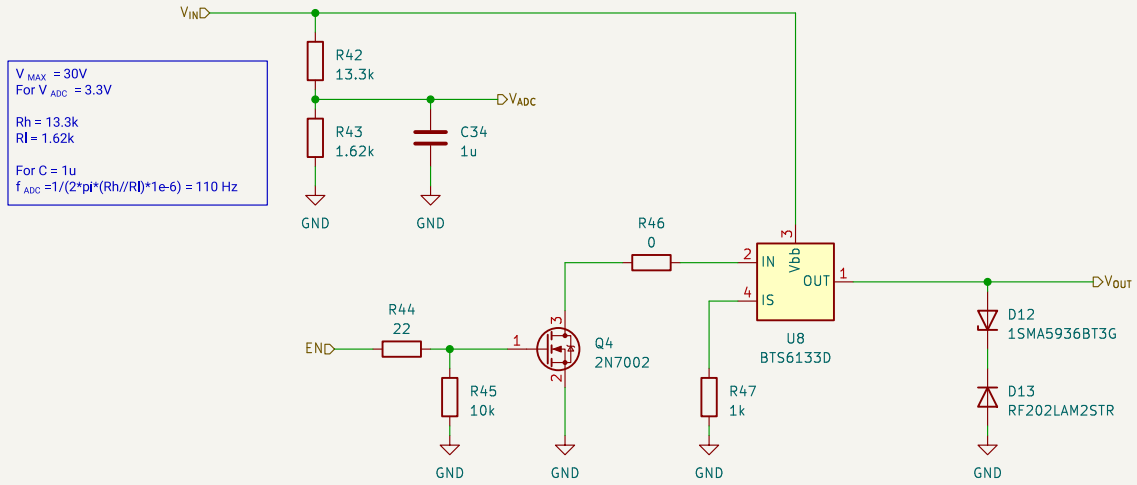
4 DAC Possible :
- DAC53202 (10 bits)
- DAC63202 (12 bits)
- DAC53002 (10 bits ultra low-power)
- DAC63002 (12 bits ultra low-power)



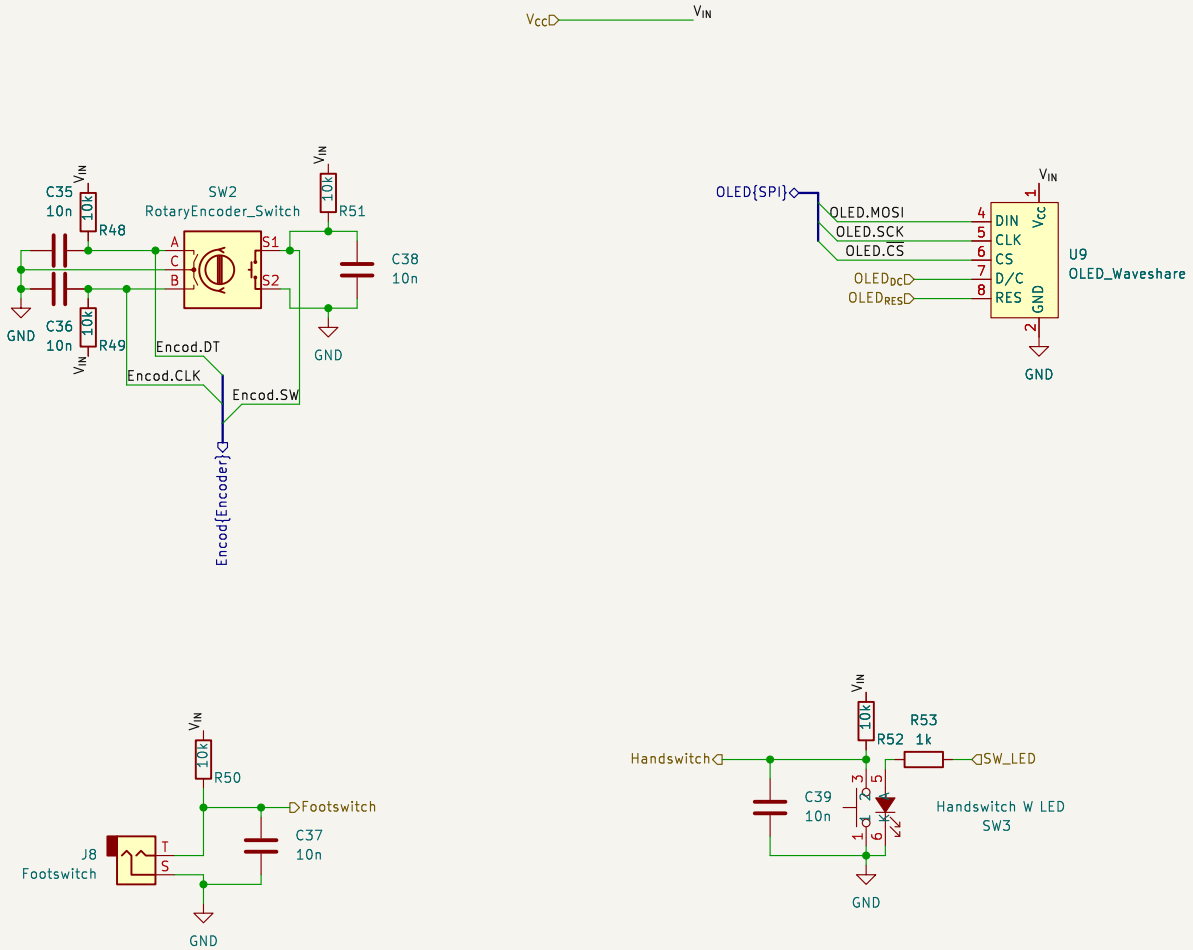
Sheet: /DAC/
File: dac.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 7/10



Sheet: /Out Power Control 2/		
File: outpowercontrol.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 8/10



Sheet: /IO/		
File: io.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad-cli 7.0.0-da2b9df05c-171~ubuntu22.04.1		Id: 10/10