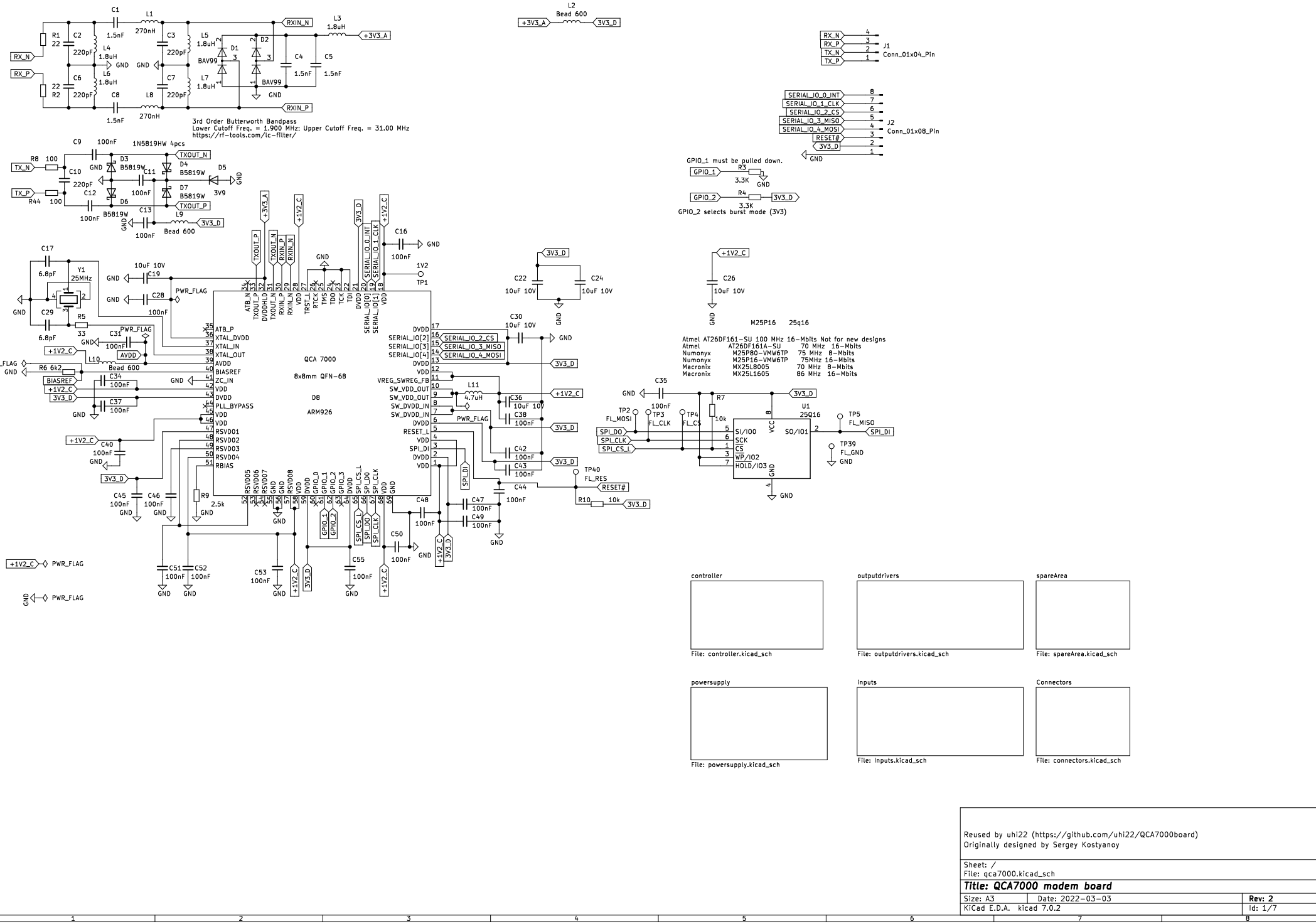
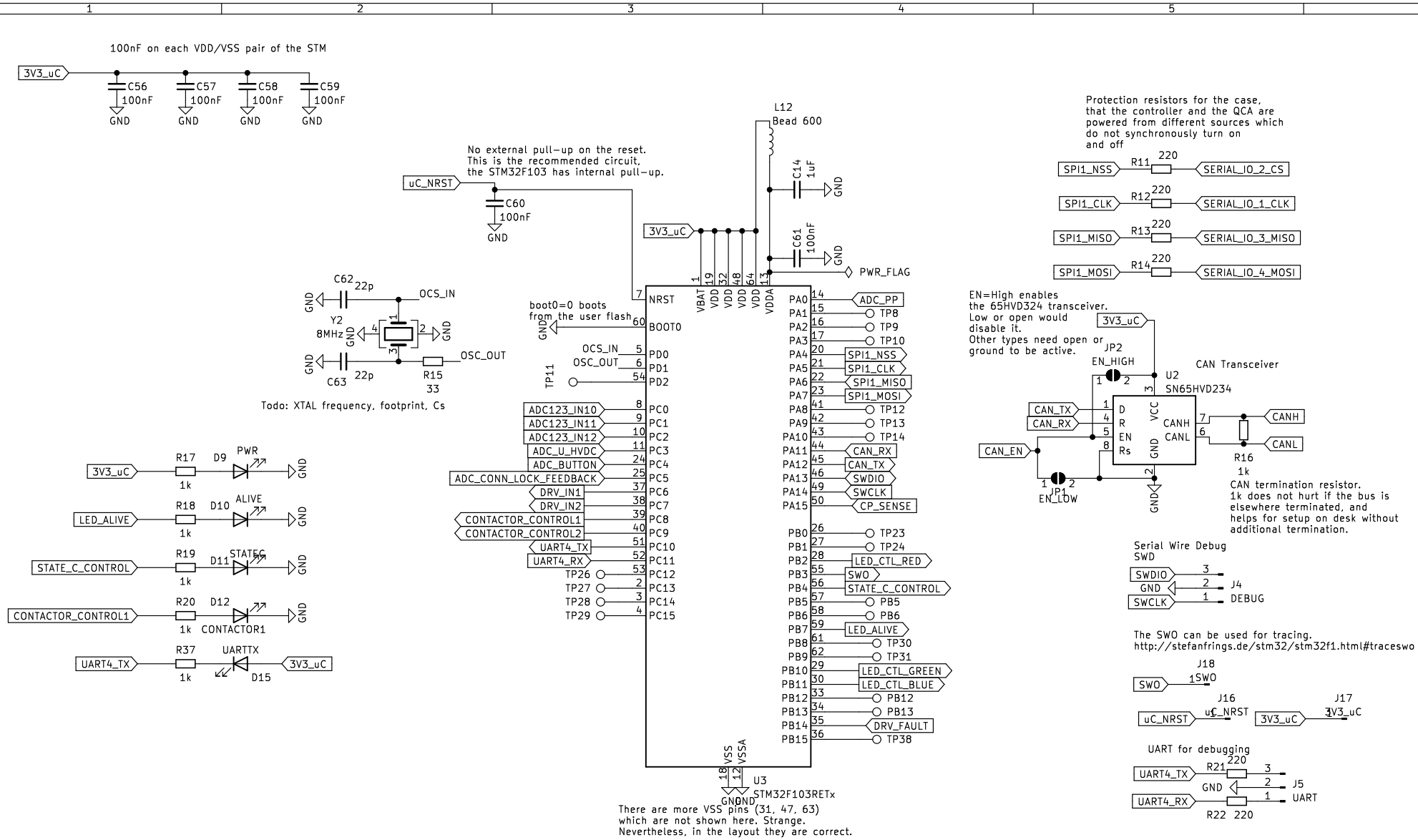
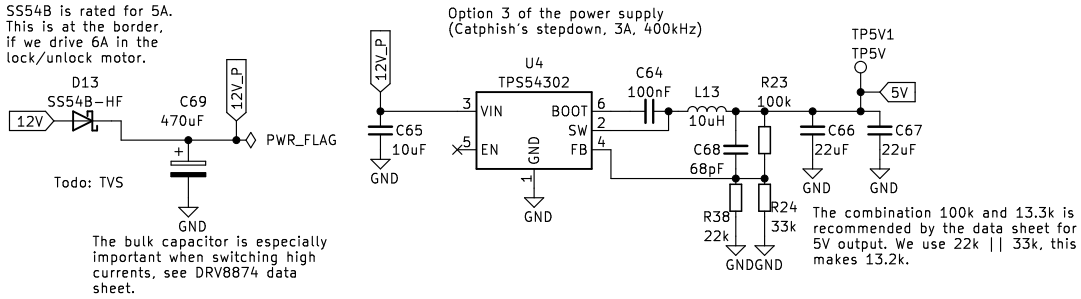
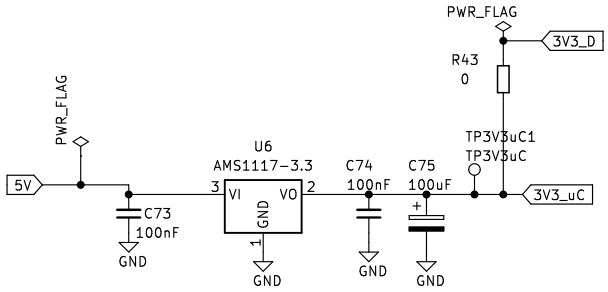

3rd Order Butterworth Bandpass
Lower Cutoff Freq. = 1.900 MHz; Upper Cutoff Freq. = 31.00 MHz
https://rf-tools.com/ic-filter/
1N5819HW 4pcs
GPIO_1 must be pulled down.
GPIO_2 selects burst mode (3V3)
QCA 7000
8x8mm QFN-68
D8
ARM926
M25P16 25q16
Atmel AT26DF161-SU 100 MHz 16-Mbits Not for new designs
Atmel AT26DF161A-SU 70 MHz 16-Mbits
Numonyx M25P80-VMW6TP 75 MHz 8-Mbits
Numonyx M25P16-VMW6TP 75MHz 16-Mbits
Macronix MX25L8005 70 MHz 8-Mbits
Macronix MX25L1605 86 MHz 16-Mbits
controller
File: controller.kicad_sch
outputdrivers
File: outputdrivers.kicad_sch
spareArea
File: spareArea.kicad_sch
powersupply
File: powersupply.kicad_sch
Inputs
File: Inputs.kicad_sch
Connectors
File: connectors.kicad_sch
Reused by uhi22 (https://github.com/uhi22/QCA7000board)
Originally designed by Sergey Kostyanoy
Sheet: /
File: qca7000.kicad_sch
Title: QCA7000 modem board
Size: A3
Date: 2022-03-03
Rev: 2
KiCad E.D.A. kicad 7.0.2
Id: 1/7



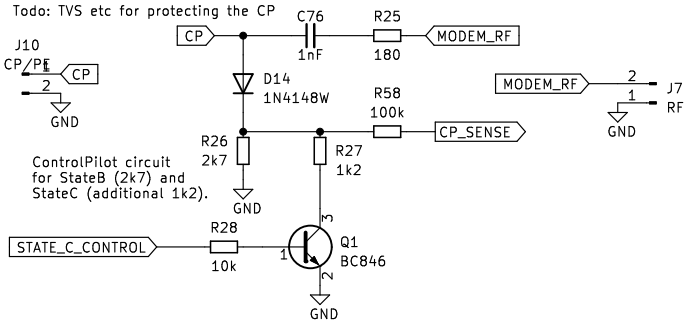
Sheet: /controller/		
File: controller.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 2/7





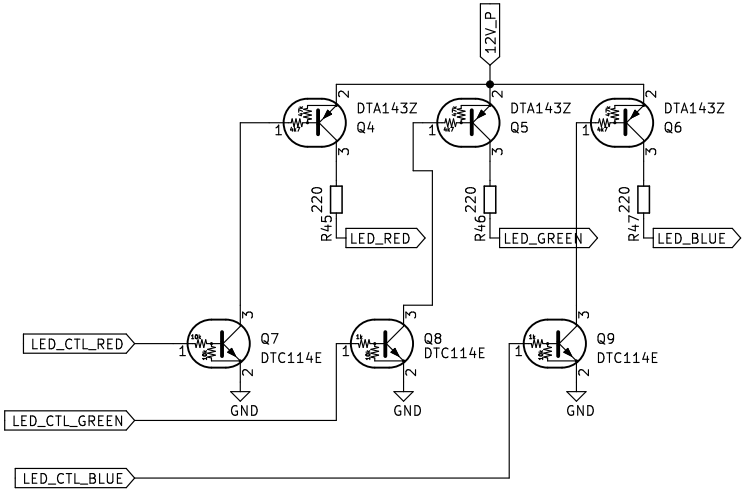
Sheet: /powersupply/		
File: powersupply.kicad_sch		
Title: Power Supply		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 3/7

Todo: TVS etc for protecting the CP



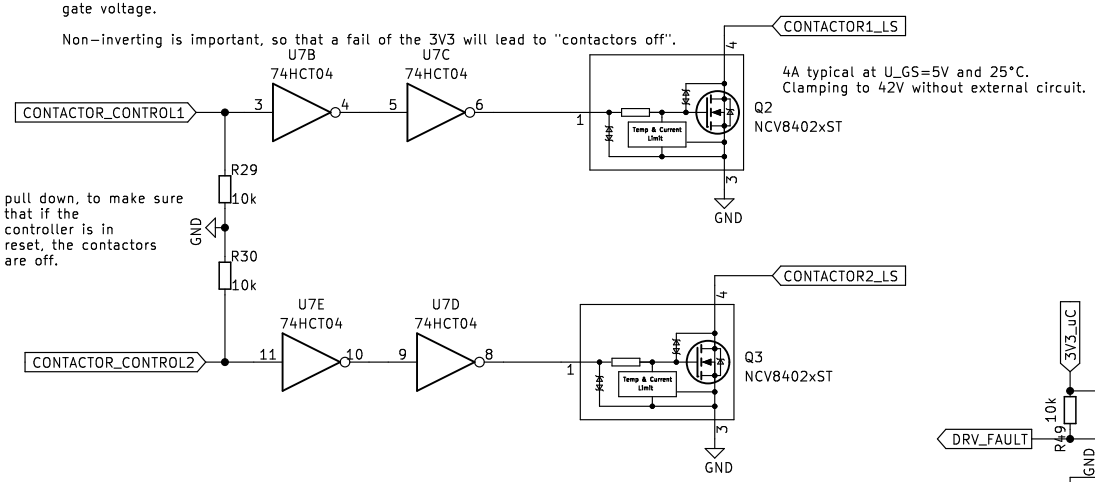
12V highside outputs for the LEDs in the button.
(or low-current-general-purpose)

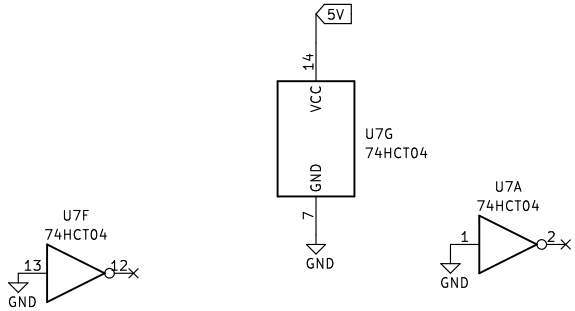
Series resistors to protect the output in case of short circuit. With 12V and 220ohms we get 54mA and 0.6W. This may burn the resistors after a short time, but better than burning the transistors.

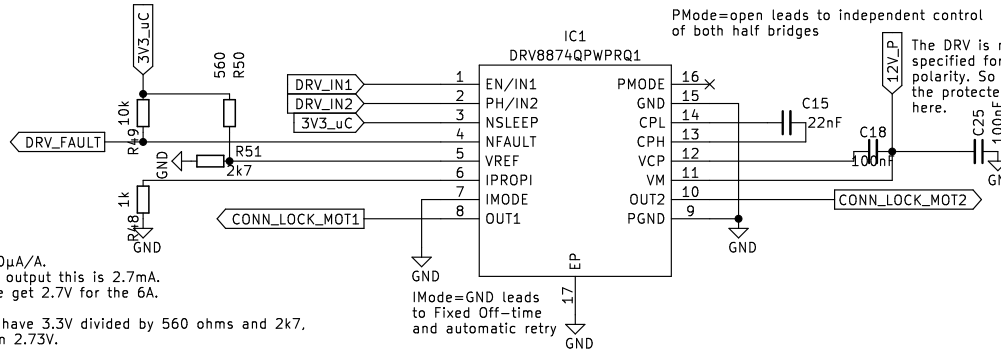


HCT as level shifter from 3.3V to 5V, because the NCV needs at least 5V gate voltage.

Non-inverting is important, so that a fail of the 3V3 will lead to "contactors off".







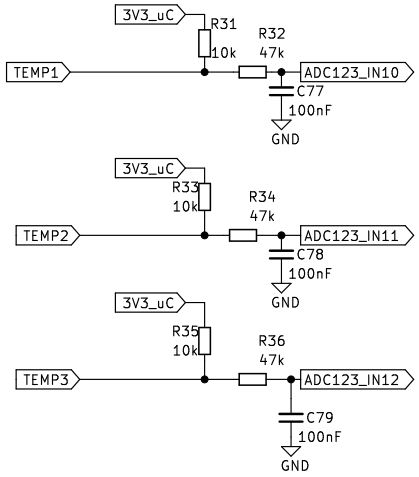
IPROPI is 450µA/A.
With 6A peak output this is 2.7mA.
With R=1k we get 2.7V for the 6A.

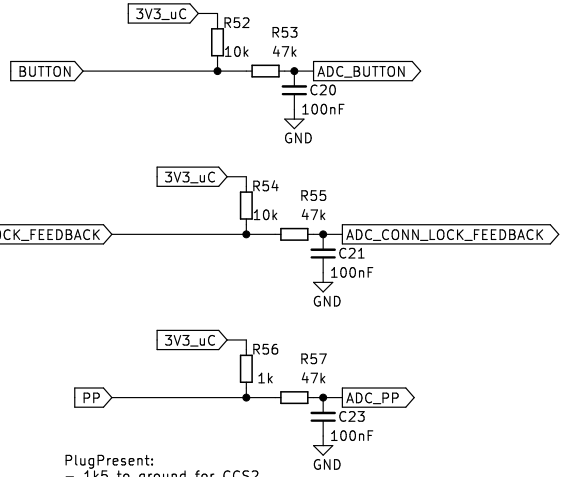
On VREF, we have 3.3V divided by 560 ohms and 2k7, this results in 2.73V.

This means, the current limitation will jump in when the output current is above 6A.

Sheet: /outputdrivers/		
File: outputdrivers.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 4/7

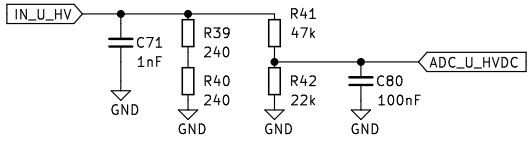
Analog inputs, e.g. for use with NTCs to ground
for temperature measurement
or analog feedback contacts or switches.





PlugPresent:
- 1k5 to ground for CCS2
- 100 ohm to 1k5 for AC (current limit of the cable)
- 150 ohm (button idle) or 480 ohm (button pressed) for CCS1

Current input for HV DC voltage
measurement as done in LIM, see
https://openinverter.org/forum/viewtopic.php?p=58839#p58839



Sheet: /inputs/ File: Inputs.kicad_sch		
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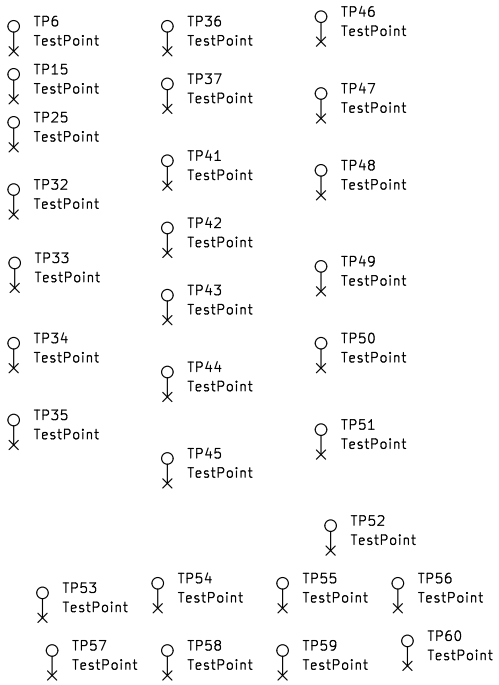
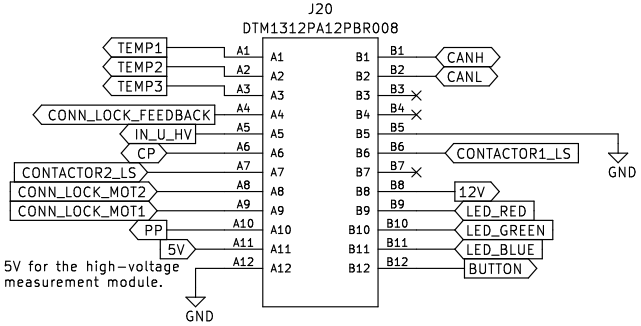
Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad 7.0.2		Id: 5/7

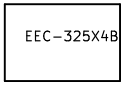


Sheet: /spareArea/	
File: spareArea.kicad_sch	
Title:	
Size: A4	Date: **Rev:**
KiCad E.D.A. kicad 7.0.2	Id: 6/7

The connector, 2 x 12 pins,
https://www.te.com/usa-en/product-DTM1312PA12PBR008.html



The enclosure, black, no vent,
https://www.te.com/usa-en/product-EEC-325X4B.html



U8
EEC-325X4B

H1
MountingHole

Sheet: /Connectors/ File: connectors.kicad_sch		
Title:		
Size: A4	Date:	**Rev:**
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