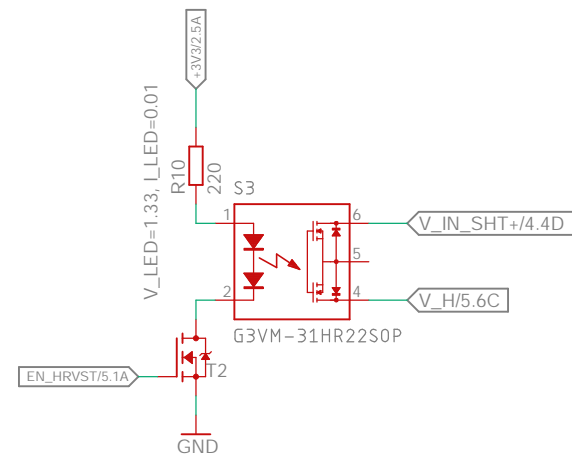
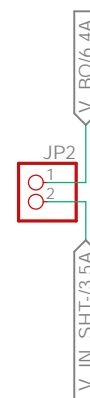


Harvesting current recorder (Shunt Amperemeter with precision instrumentation amplifier)



Low on-res switch for connecting/disconnecting harvester

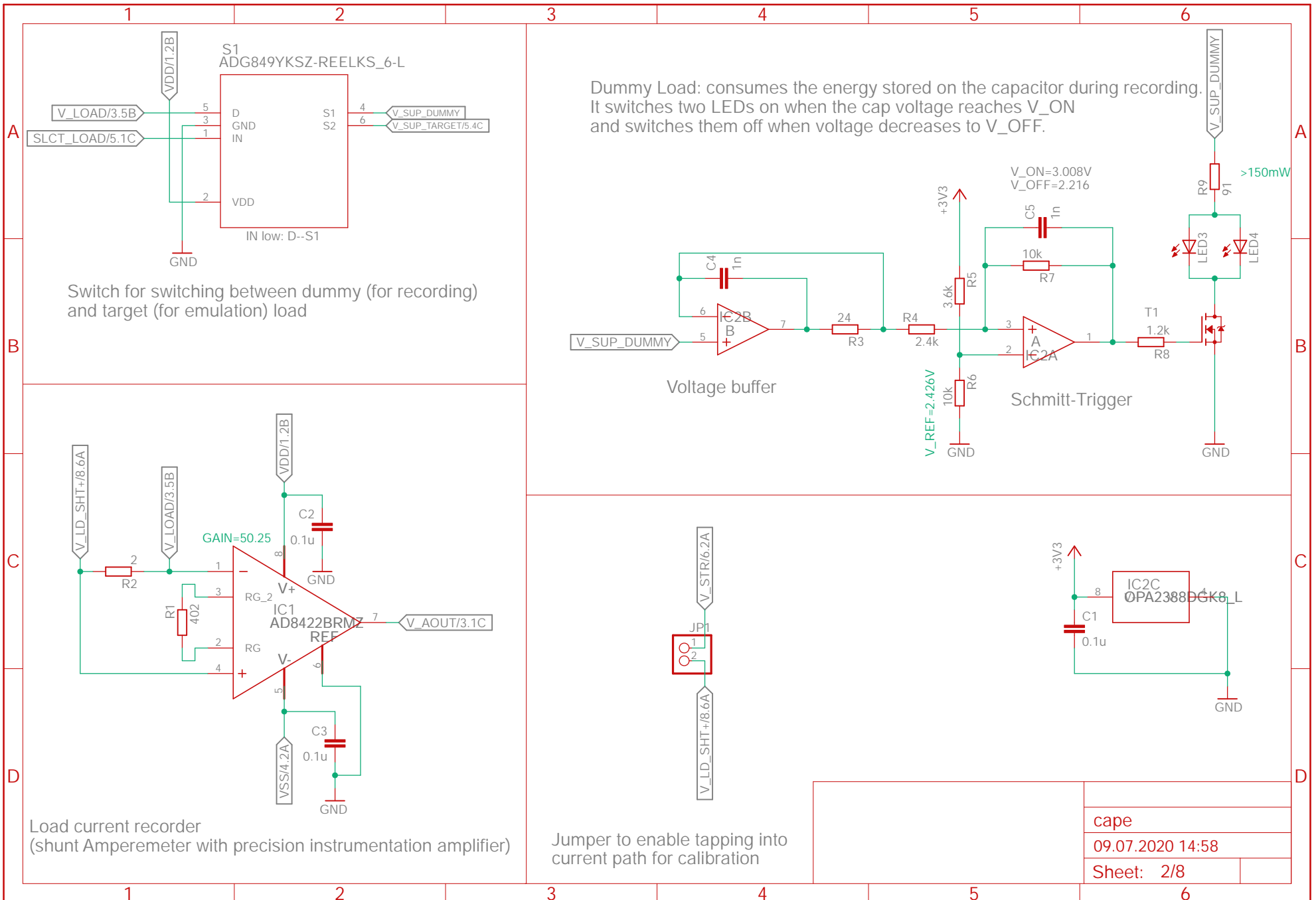


Jumper to enable tapping into current path for calibration

cape

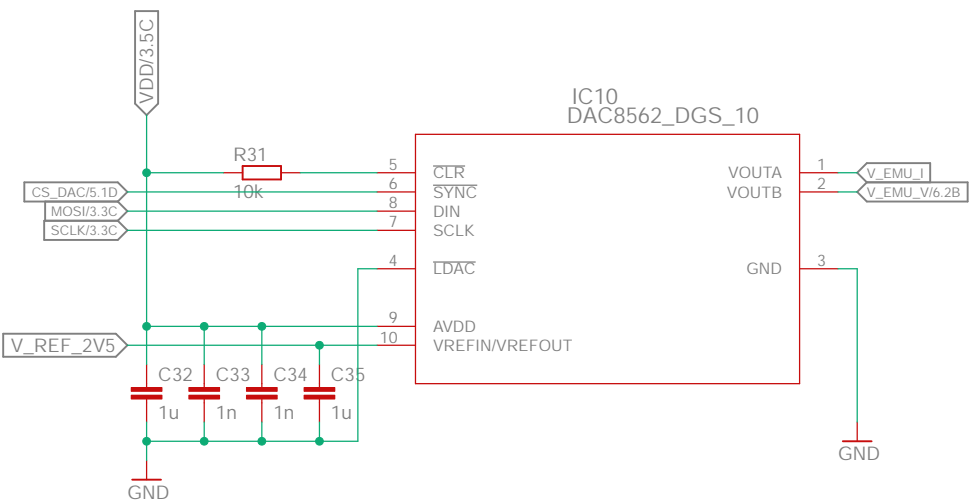
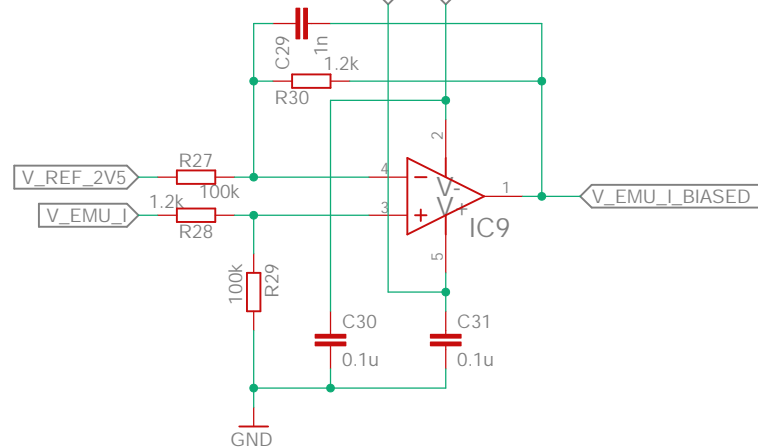
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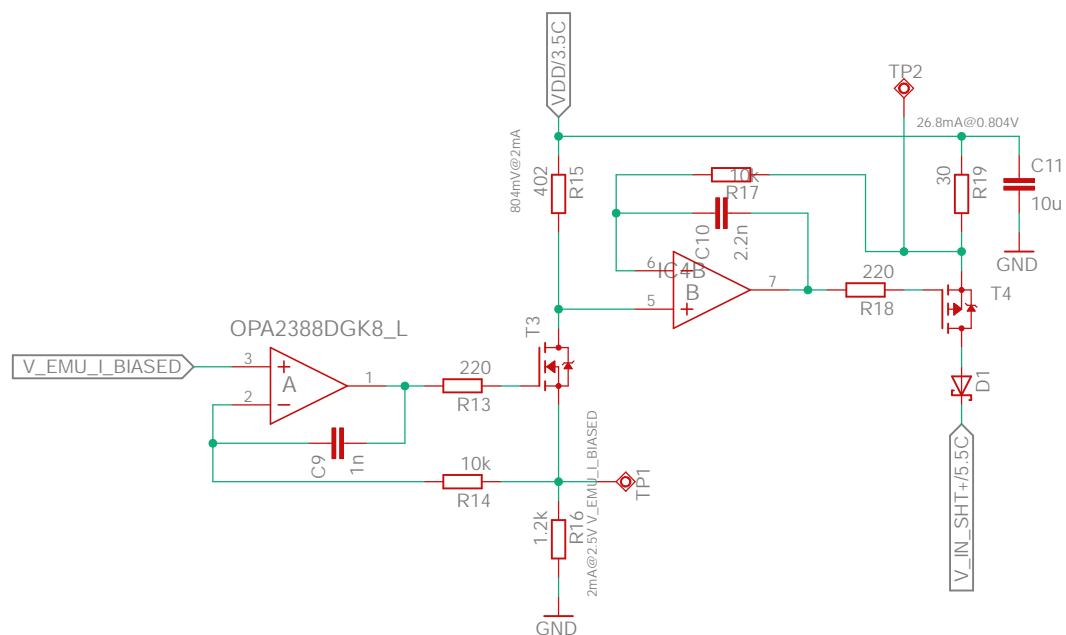




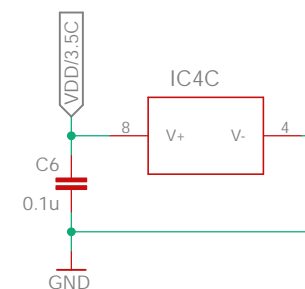
Subtractor for applying small negative bias to current emulation channel in order to guarantee zero output current



Two channel DAC for generating reference voltages for emulation (I and V)



Precision V2I converter used as digitally controlled current source for emulation

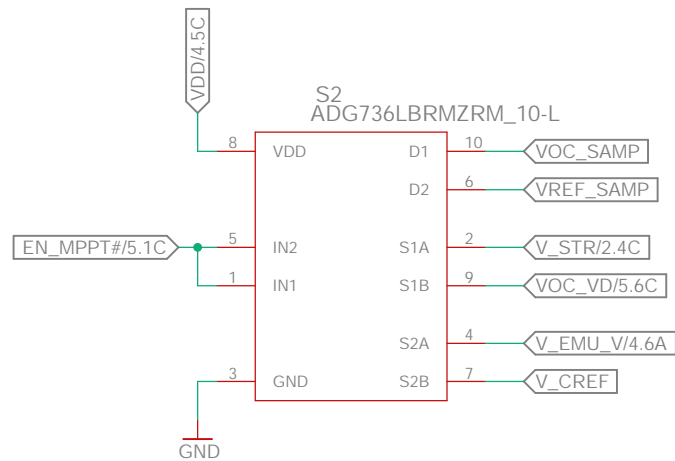


cape

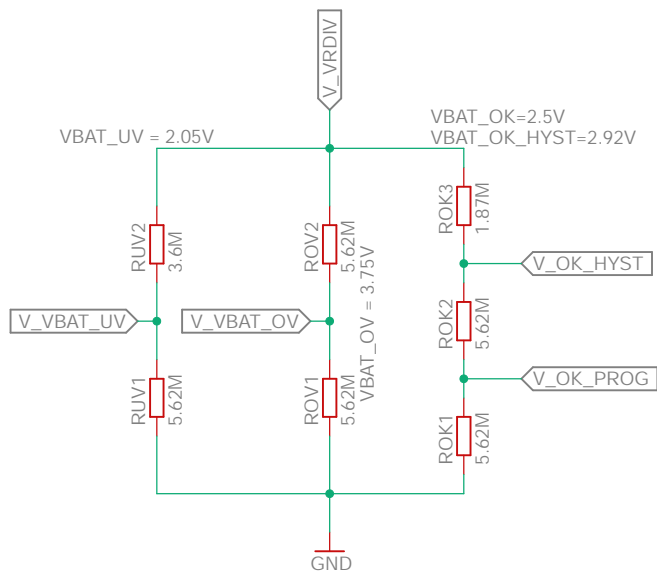
09.07.2020 14:58

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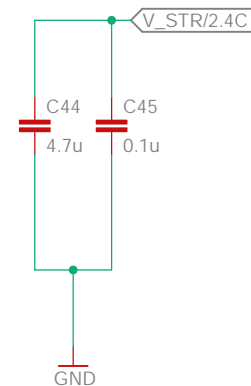
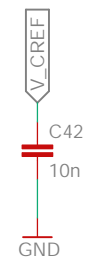
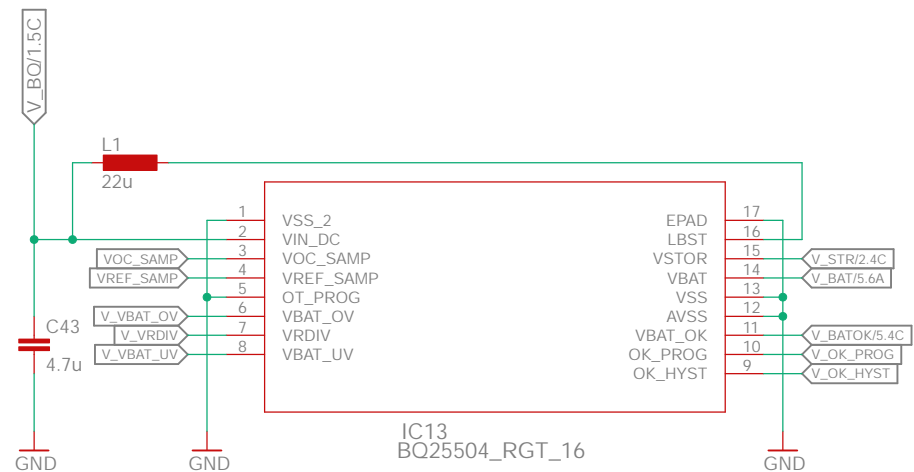




Analog switch to dynamically switch between built-in MPPT of BQ25504 and reference mode, where it tracks the voltage applied to V\_EMU\_V



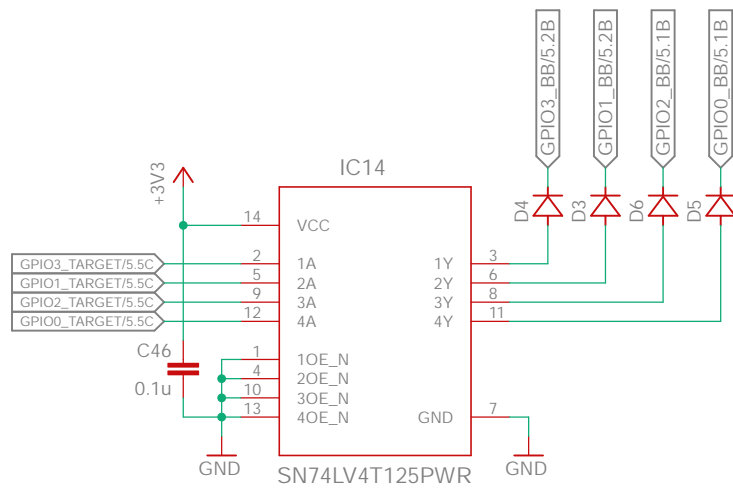
Resistor network for setting overvoltage and 'battery in operating range' voltage thresholds of BQ25505



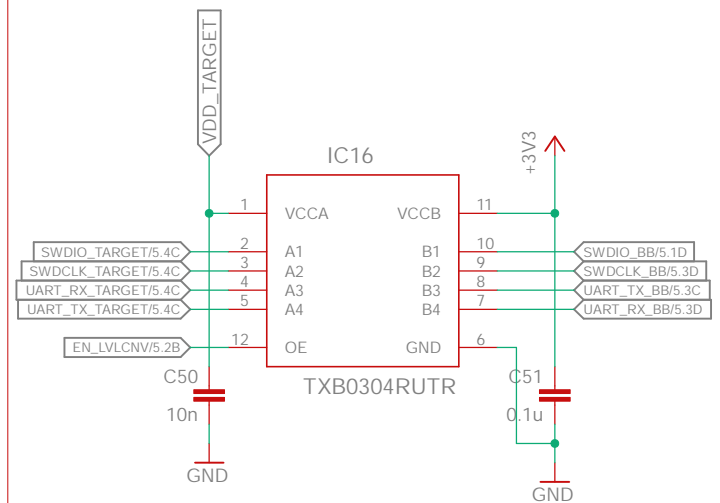
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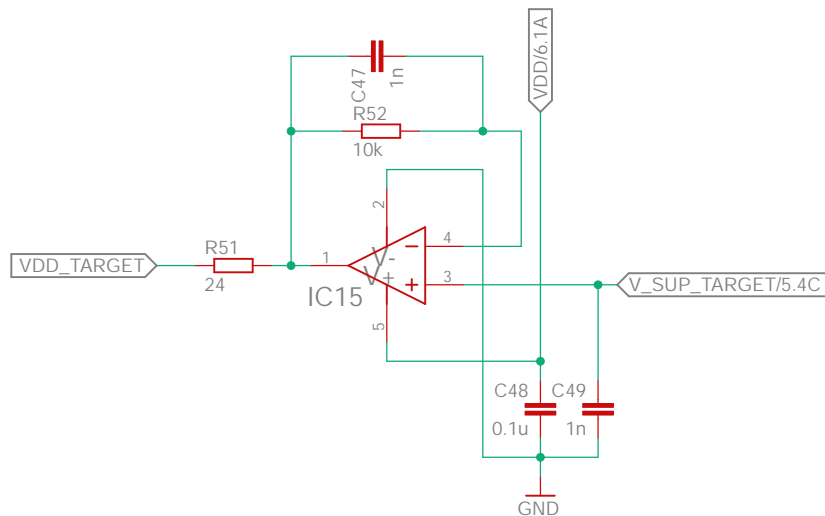
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Uni-directional, high input impedance level converter for GPIO tracing



Bi-directional level converter for UART and SWD signals

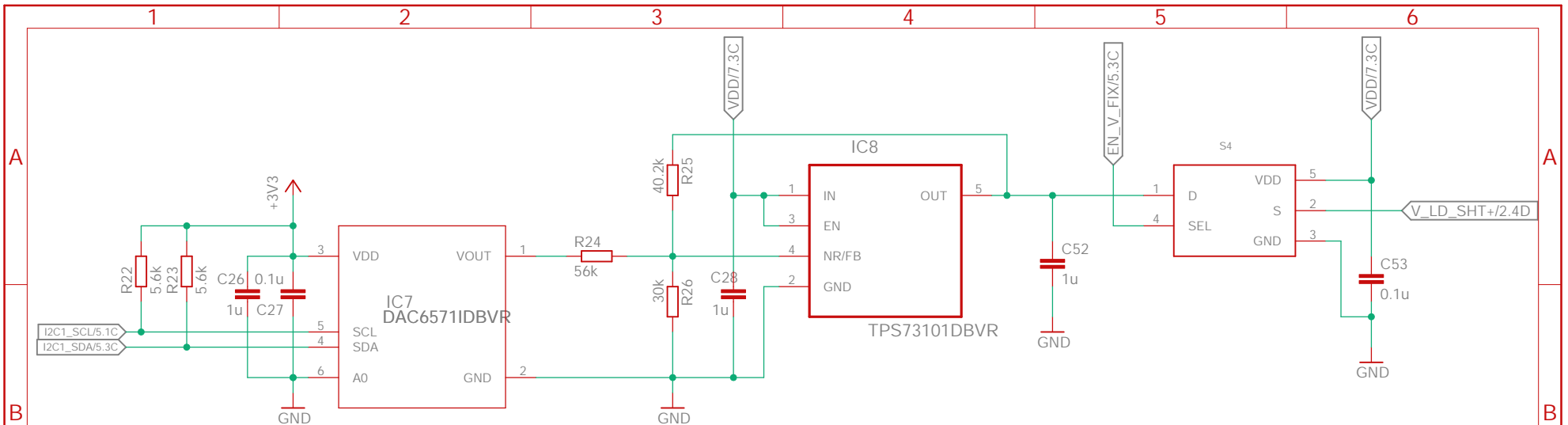


Voltage buffer for generating the supply voltage for the bi-directional level converter

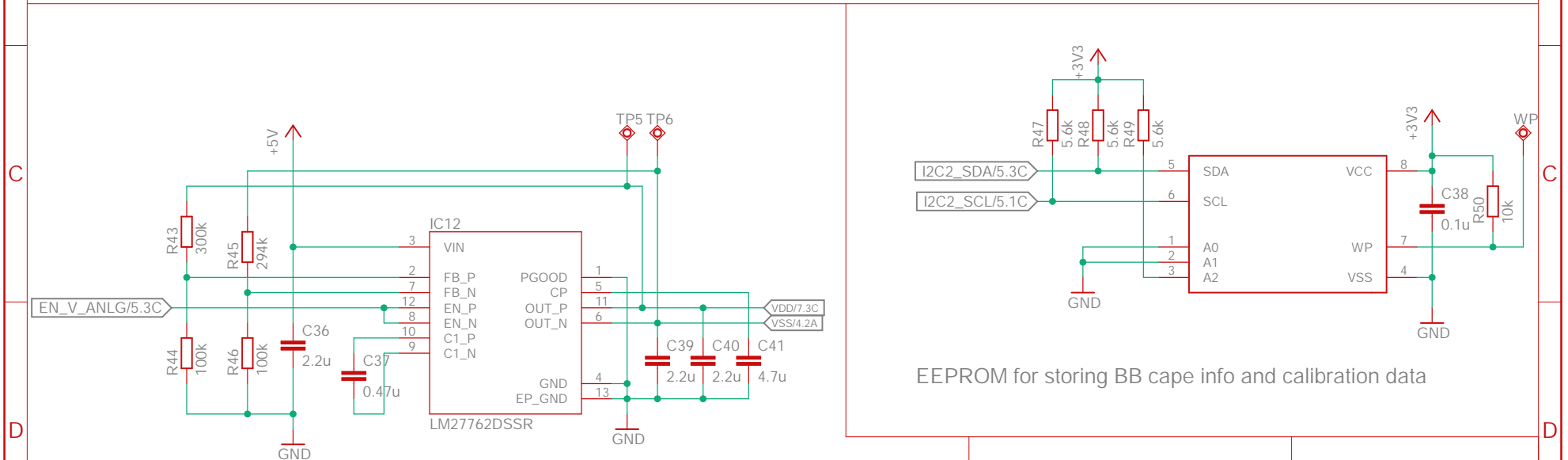
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Fixed supply voltage for programming/non-harvesting operation of the testbed.  
The DAC output voltage changes the voltage on the reference pin of the LDO, linearly controlling its output voltage.



Generates the low-noise, positive and negative analog supply voltages

EEPROM for storing BB cape info and calibration data

cape

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