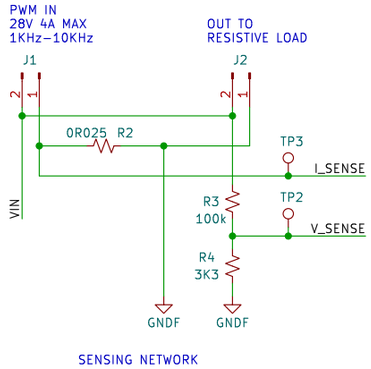
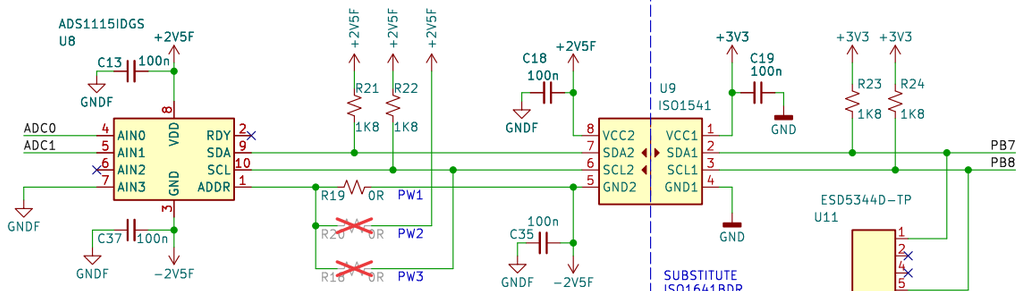
Verify LTC1968 NC connection to −2.5V

FLOATING GROUND

BUS GROUND

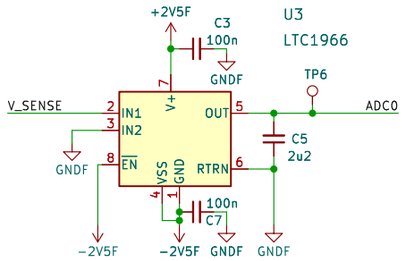


SENSING NETWORK

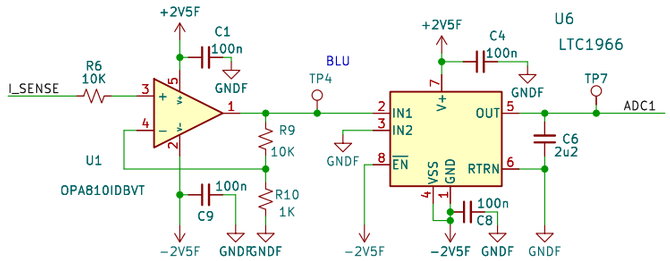


I2C ADC

I2C ADDRESS

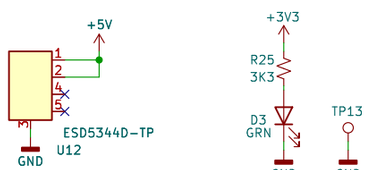


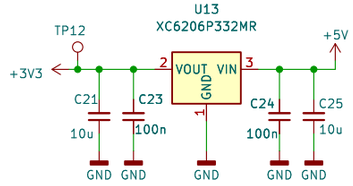
VOLTAGE RMS/DC

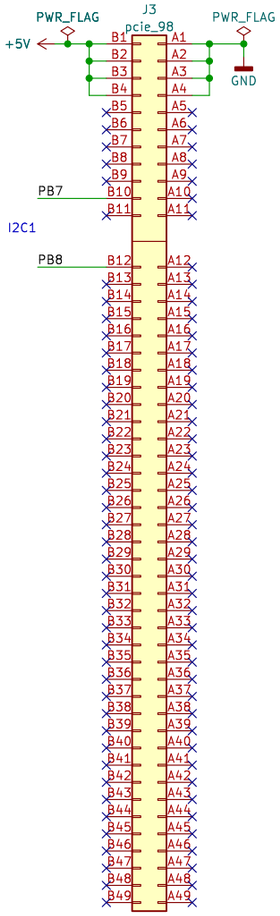


AMPLIFIER X11

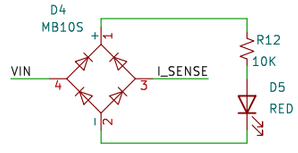
CURRENT RMS/DC



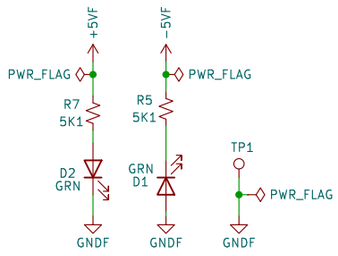


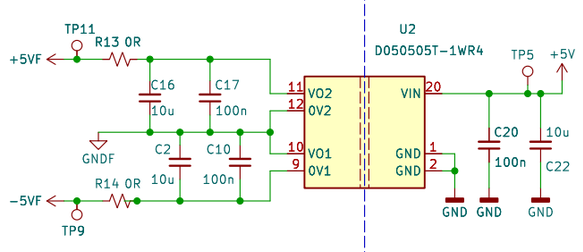


BUS

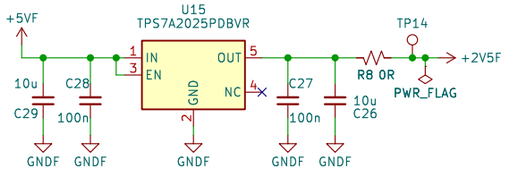


VIN INDICATOR

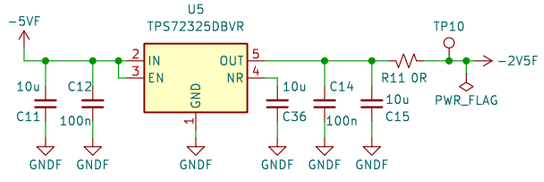




ISOLATED 5VDC TO +/−5VDC



+2.5V LDO



−2.5V LDO

NOTES:
* LCSC part number are of approximated values to maximize usage of JLCPCB 'basic' parts.
* Accuracy can be improved by suing low ppm resistors where applicable and a film capacitor for the RMS converter integrator.
* JLCPCB fabrication files should be generated using the Kicad's Fabrication Toolkit plugin.
* OPA810IDBVT was selected for high slew rate, low current offset, and low voltage offset.
* Substitute ISO1541 with ISO1641BDR.
* Substitute LTC1966 with LTC1967, LTC1968
* Several 0R resistors where added to allow to disconnect for diagnostics.
* The ground plane under the shunt resistor is isolated thermally from the rest of the ground plane.

PWM POWER METER V0.2