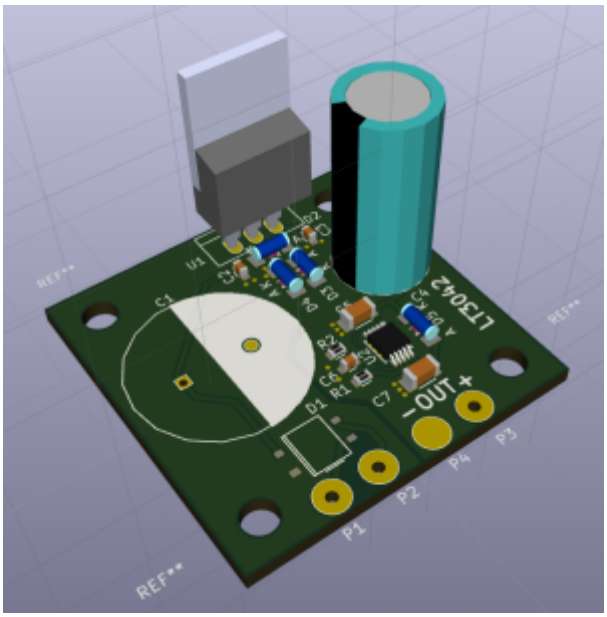
Ultra Low Noise Linear Power Supply, using LT3042



Small power regulator PCB, with AC inputs and DC output.

- 78xx as a pre-regulator, to reduce power loss on the LT3042 and to increase the max. input voltage
- Output voltage: 0-15V
- Output current: max. 200mA
- Input voltage: max. 20VAC

Setting the Voltage

The LT3042 has a very nice way to set the output voltage. Instead of using an internal voltage reference and an external voltage devider, a constant current is driven through a user settable resistance, which is then the reference voltage!

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U_out = 100uA * R1||R2
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e.g. with R1||R2 = 50kΩ, U_out = 5V

Schematic

rauscharmes-netzteil-5v.pdf

KiCad project

uln-power-supply-kicad.7z

OSH-Park

You can directly order this PCB from oshpark.com

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