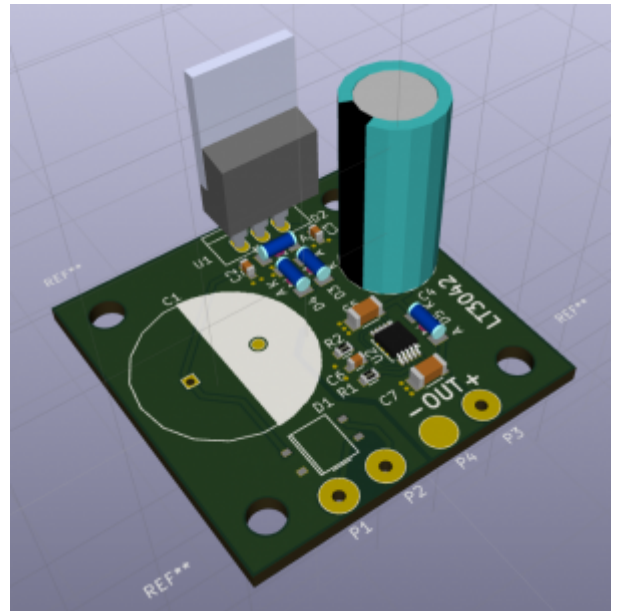


Ultra Low Noise Linear Power Supply, using LT3042



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 divider, a constant current is driven through a user settable resistance, which is then the reference voltage!

$$U_{\text{out}} = 100\mu\text{A} * R1 || R2$$

e.g. with $R1 || R2 = 50\text{k}\Omega$, $U_{\text{out}} = 5\text{V}$

Schematic

[rauscharmest-netzteil-5v.pdf](#)

KiCad project

[uln-power-supply-kicad.7z](#)

From:

<http://www.zeilhofer.co.at/wiki/> - **Verschiedenste Artikel von Karl Zeilhofer**

Permanent link:

<http://www.zeilhofer.co.at/wiki/doku.php?id=uln-power-supply&rev=1455225695>

Last update: **2016/02/11 22:21**

