

PS-UNxx(S)

Universal Power Supply modules

Besides our amplifier modules and add-ons, we also provide universal, high-power, high-quality power supply boards with a symmetrical output voltage. In dec. 2017 we added single variants as well, very capable of feeding single rail class-D amplifiers.

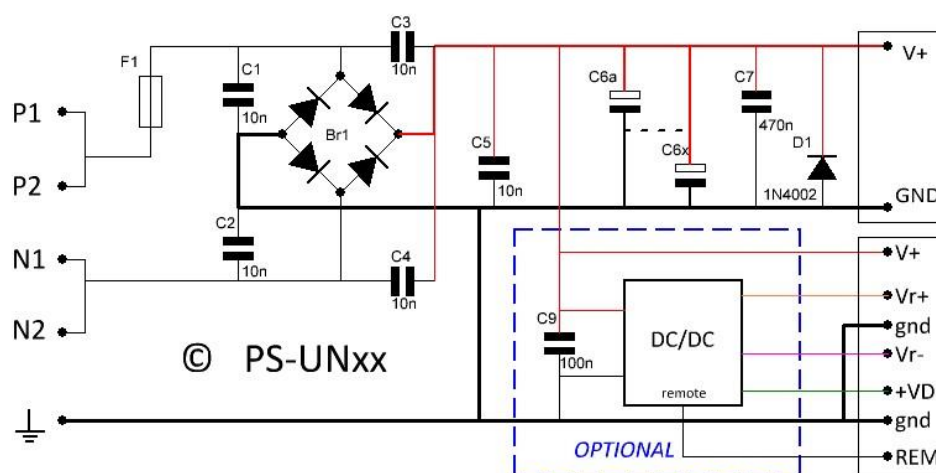
Unlike many internet stuff, we tried to make them as good as possible with high quality components and FR4 circuit boards with widest tracks, lasting for many years of use.

These power supply modules can feed our amplifiers, but due to the universal layout, you could use them wherever a high quality, long lifespan power supply is required.

More and more we see the use of Switched Mode power supplies, basically for three reasons: easy to use, compact and cheap. We don't understand why people use those, since the dynamic behaviour is very poor compared to classical, linear designs like ours. So, all your efforts gets lost. Besides that, the higher efficiency of a class-D amp is killed by the use of a switched mode supply, since these kind of power supplies are way less efficient (70%) compared to regular supplies (95%)! All board fit multiple types of capacitors, so we (or you) can make cost effective up to professional.

PS-UNxx, Single voltage Power Supply modules.

We also developed similar power Supply modules in a single voltage variant. Schematics of all is like this:

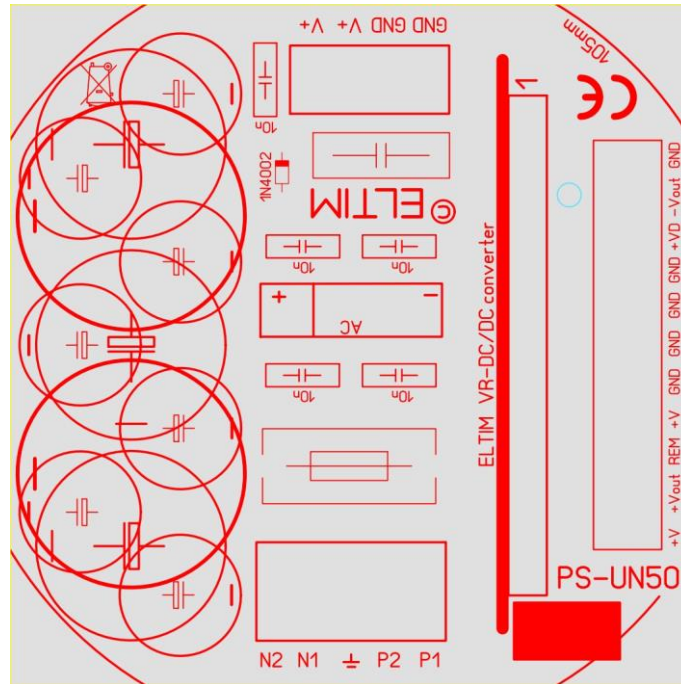


These Power Supply modules are very capable of feeding f.e. a Class-D amplifier.

Some of these types of amplifiers also need a lower voltage for the driving circuitry and/or other electronics in the design. If required, you can add one of our [NEW DC/DC converter/regulator modules](#) for this.

PS-UN50

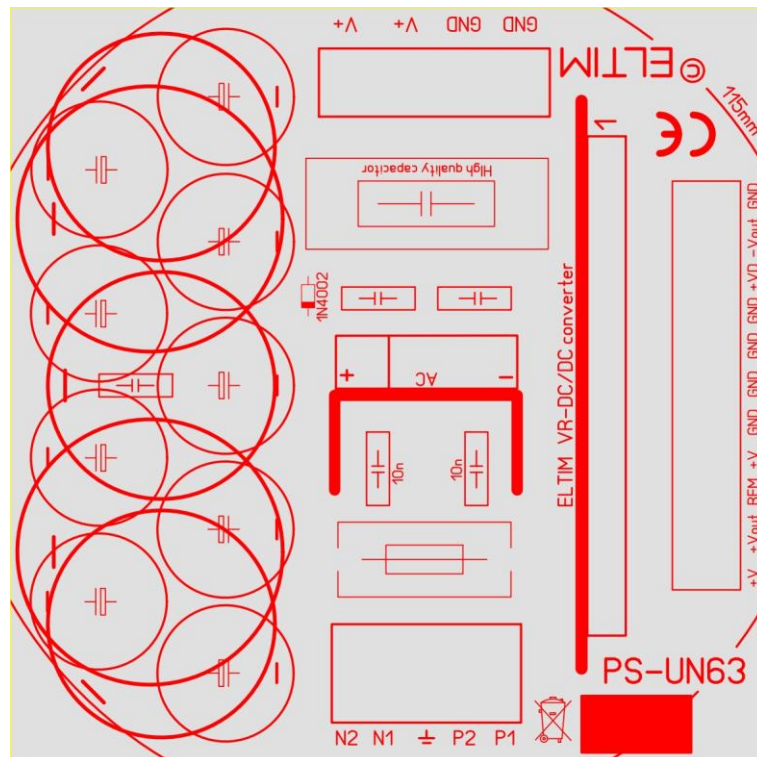
Max output voltage of 50V, 4A (transformer max. 35V)



Size 90x90mm

PS-UN63

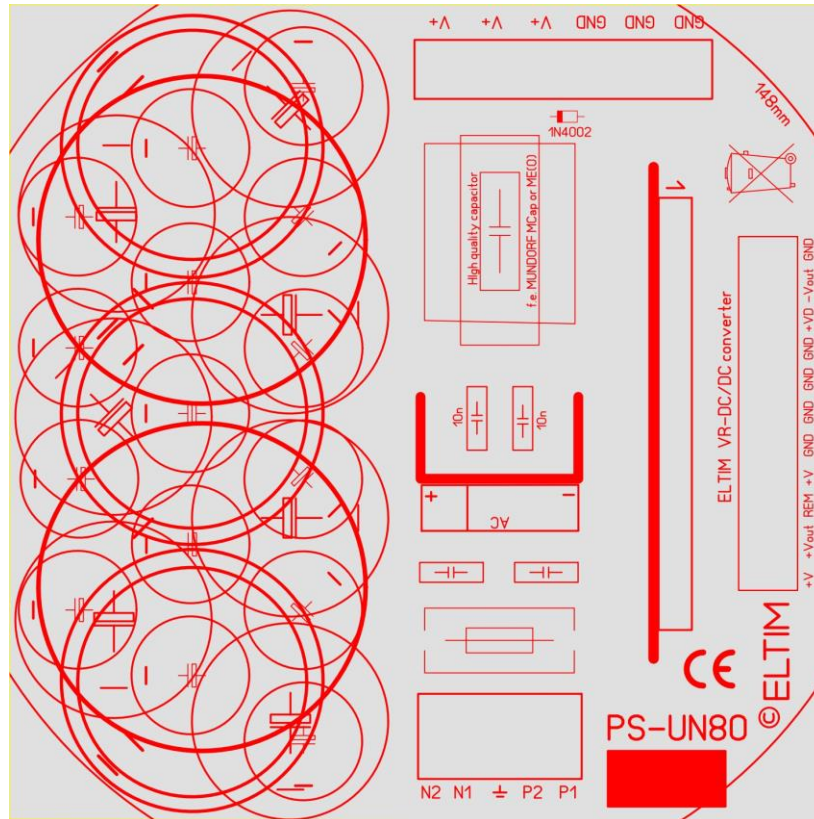
Max output voltage of 63V, 8A (transformer max. 40V)



Size 100x100mm

PS-UN80

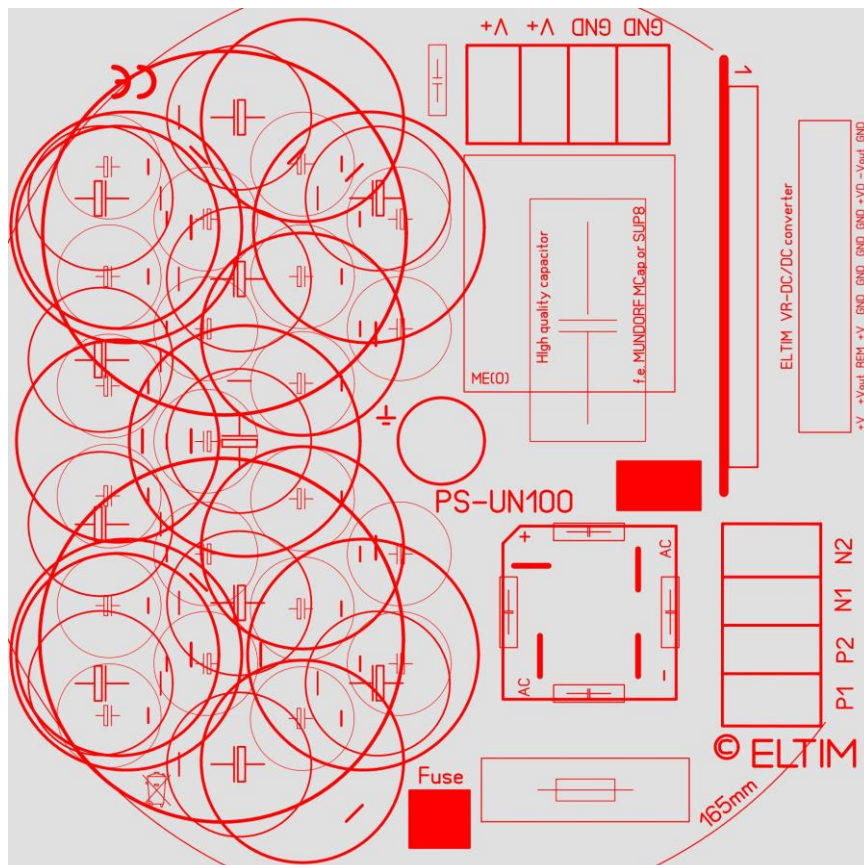
Max output voltage of 80V, 15A (transformer max. 50V)



Size 125x125mm (off scale)

PS-UN100

Max output voltage of 100V, 25A (transformer max. 35V)



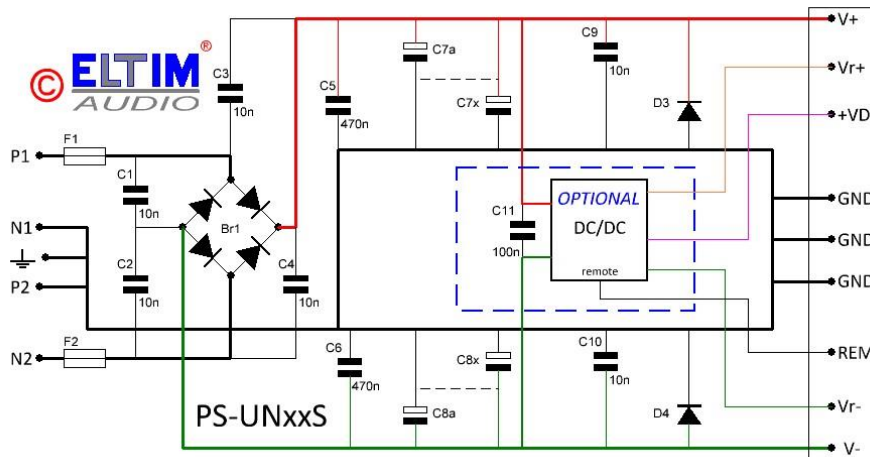
Size 150x150mm, double sided board. (off scale)

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PS-UNxxS, Symmetrical versions

We produce four different types for different symmetrical supply voltages and load ranges. Every board is designed to fit multiple types of capacitors. At a header connector you can stack one of our [Voltage Regulator boards](#), providing a symmetrical regulated and adjustable voltage. In febr. 2018 we modified the boards and now you can ALSO use our [NEW DC/DC converter/regulator modules](#), extracting low supply voltages (3,3V, 5V; 12V; 15V) and mixes of them from about any source supply. With these, up to three low supply voltages are available at a screw connector. All our PCB's are very high quality FR4 boards, tinned and with a solder stop. PS-UN80S even double sided.

Basically, our symmetrical [PS-UNxxS Power Supply modules](#) show the most common used schematics:



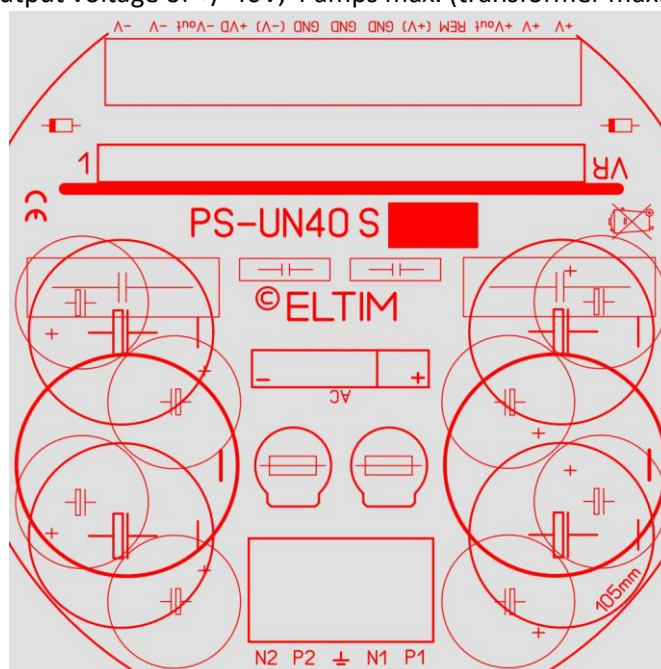
Unlike most far east boards like this, we added all required small stuff in order to obtain the lowest noise figures possible. We also use long life, high grade electrolytic capacitors on a high quality PCB.

The secondary windings of a transformer are connected to P1 – N1 and P2 – N2.

The AC power is rectified by a bridge rectifier. As it always should be, every diode is decoupled with a small capacitor in order to avoid noise and sparks. Then C5/C6 are over the Power lines for further noise reduction as later also the smaller C9/C10 do. The power reserve comes from C7a/C7x, with different values and qualities depending the model. In order to avoid a negative voltage over the power capacitors (causing shorter lifespan of them), we added a pair of diodes over the voltage rails as well. This negative voltage could occur while using inductive loads (f.e. relays). While switching those off, an inversed voltage is generated by the coil of this relay, yet shortcut by these diodes.

PS-UN40S

Max. output voltage of +/-40V, 4 amps max. (transformer max. 2x25V)

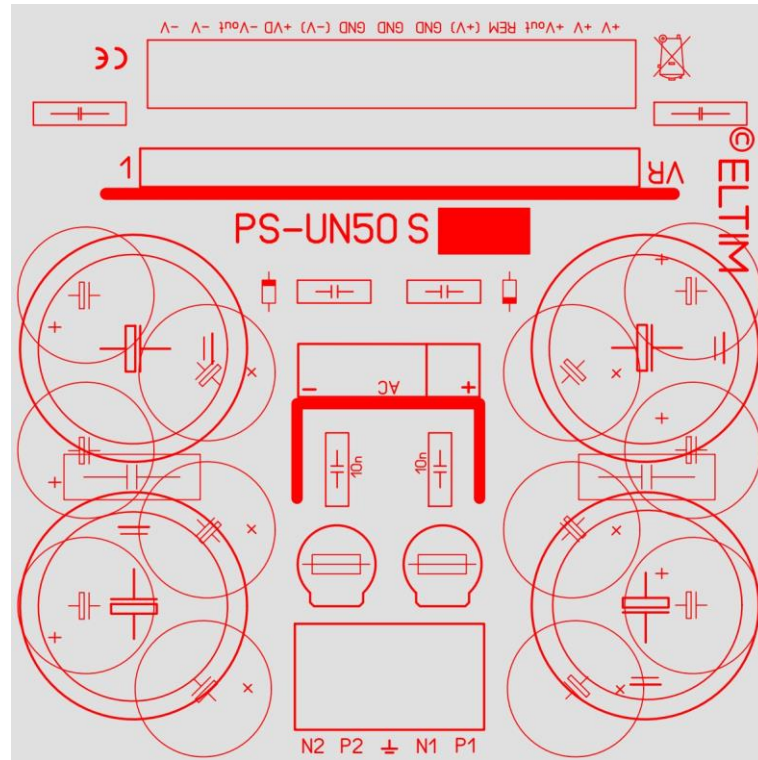


Size 90x90mm

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PS-UN50S

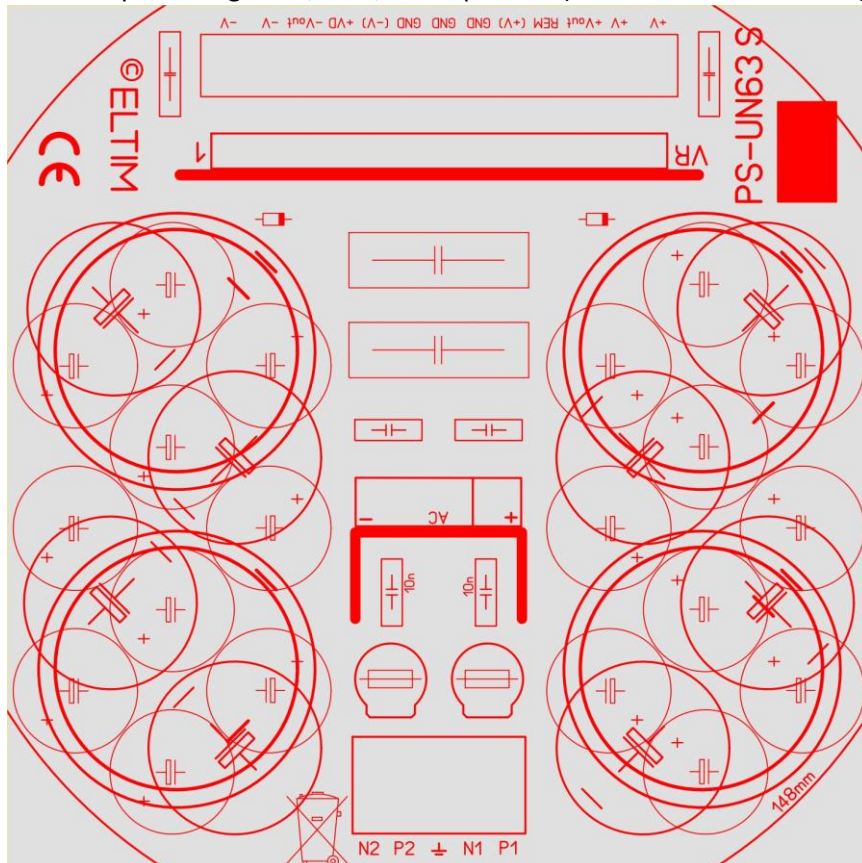
Max. output voltage of +/-50V, 8 amps max. (transformer max. 2x35V)



Size 100x100mm

PS-UN63S

Max. output voltage of +/-63V, 15 amps max. (transformer max. 2x40V)

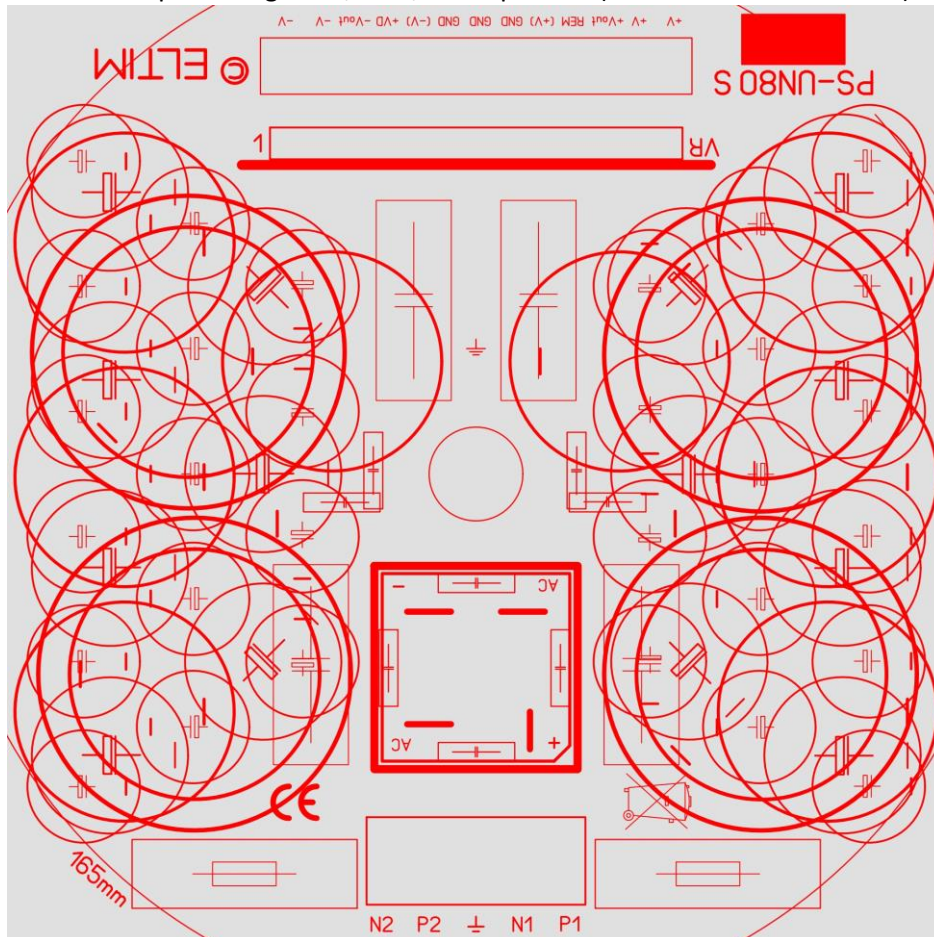


Size 125x125mm (off scale)

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PS-UN80S

Max. output voltage of +/-80V, 25 amps max. (transformer max. 2x 50V)



Size 150x150mm (off scale, double sided board)

Additional, low supply voltages

After redesigning these modules in February 2018, we not only can add our linear voltage regulator modules but also our NEW [switched mode DC/DC converter-regulator modules](#). As expected from us by now, we only use professional, shielded (and grounded) converter modules with very high switching frequencies (>300kHz), low RF-residue and a very high efficiency of 85 - 92%, depending the model.

These modules are available in a very wide range with input voltages from 9 – 256Vdc.

We supply them with 2x26 pin (gold plated) headers, fitting about all our modules AND with a screw terminal for universal use. They all can be remote controlled (on/off).



Single/dual version with header



Triple version with screw connector

Scale 1 : 1

The outputs of most of them are single, symmetrical or even triple (symmetrical + digital) voltages as 3,3V, 5V, 12V and 15V or mixes of them in the triple variants.

So, from now on you only need one transformer and one power supply to feed your complex design.

We possibly can even make special versions for OEM's or other companies requiring power supplies. [MAIL](#)

ELTIM Audio Modules & Kits

Besides these Power Supply modules we also provide ranges of

- [Power Amplifiers](#),
- [Preamplifiers](#),
- [Audio converter/Buffer modules](#),
- [VCA volume control modules](#),
- [Improved replacements for 78xx and 79xx Voltage regulators](#),
- [Single and symmetrical universal Power Supplies for smaller loads](#), like preamps and DSP,
- etc.

All are available as built & tested modules & kits. All **kits are supplied without Power Supply capacitors** in order to let you decide yourself which brand/type/voltage/value/quality you want to use!

Components supply

We also have very interesting, rare, audiophile chips, transistors and passive components available in [our webshop](#). We supply f.e. [EXICON](#) Mosfets (specifically designed for the highest quality analogue amplifiers), [THAT](#) audiophile analog (!) IC's, [MUNDORF](#) power supply capacitors, crossover components and Air Motion Transformers (AMT's), [Audio Technology](#), [VOXATIV](#) and [many more drive units](#), [PURESONIC](#) connectors (EU distributor), all kinds of [transformers](#) and many more nice and sometimes hard to find DIY stuff..... -) Since the end of 2016 we also supply hundreds of types of [Phono cartridges](#), [replacement styli](#), [spare parts](#) and [accessories](#) for your turntable. Also, find [intelligent](#) and [multifunctional](#) displays today.

In our own electronics and woodwork shops we can make about any electronics and speaker cabinet you want us to. At our website www.eltimaudio.com you'll find some ready built equipment.

If you want us to make some electronics or speaker cabinets let us know. BUT, remember it's our profession with corresponding pricing, not our hobby! We only use high quality Topan MDF, which is something else than the poor quality you'll find at your hardware store. It's as smooth as a baby butt -)

Read a [6Moons review of our Solo project](#), probably interesting.

Also, for business partners (quantities) we can develop/design and supply PCB's in highest available quality of about any kind. We even could design and assemble f.e. your crossovers while using [MUNDORF](#) and/or [INTERTECHNIK](#) parts for an acceptable price, since we act as Benelux Distributor for both.



Example: our [XO-1 PCB](#)



Our woodwork facility where a lot of E621 front panels are produced

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