

**ESS** 9017 / 9027

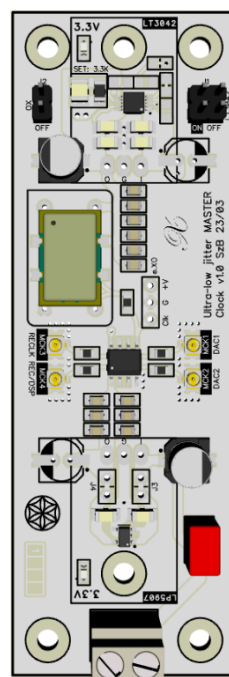
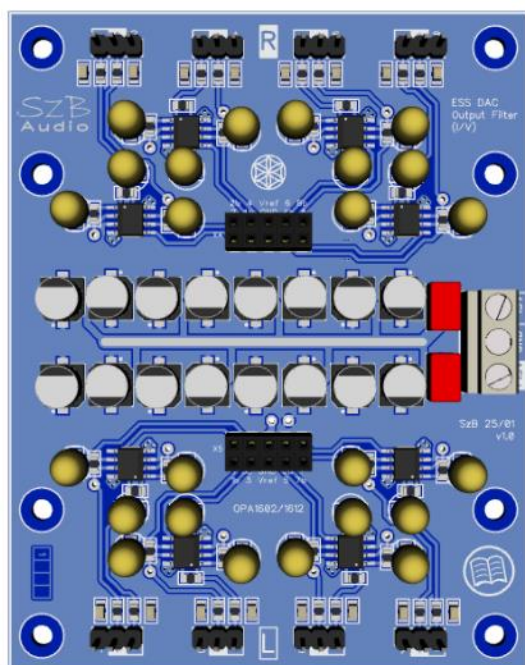
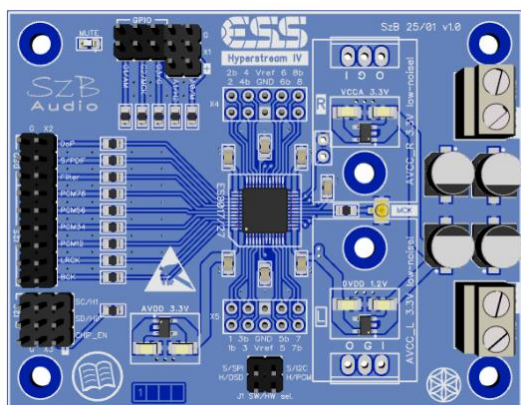
# DIGITAL ANALOG CONVERTER SET

*designed for active speaker systems*

*Version 1.0*

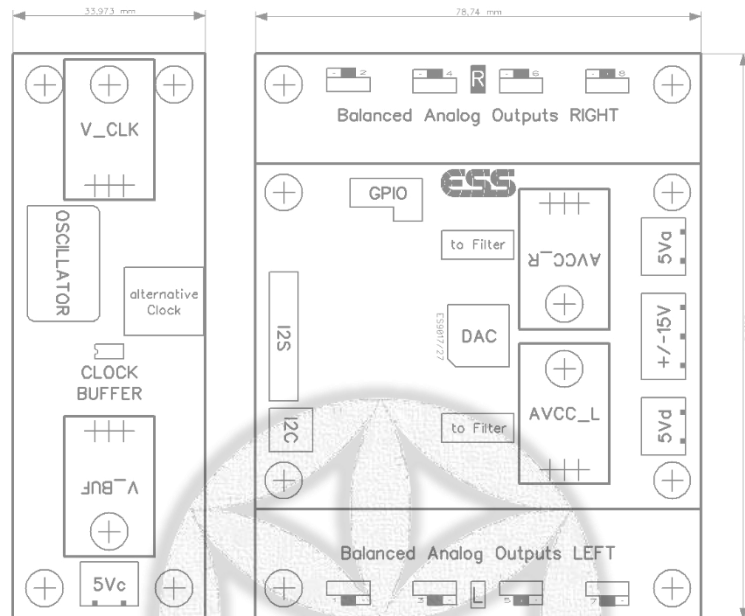
## Main features:

- brand new, HyperStream IV architecture
- THD+N / DNR: 110 / 120dB vs 114 / 124dB
- Hardware mode possible (w/o  $\mu$ Controller)
- DIY friendly soldering (no QFN packages, still some advanced skills are assumed)
- Balanced or unbalanced analog outputs
- Designed for OPA1602 or 1612
- The use of ultra-low jitter clock (e.g. Crystek CCHD-957) possible
- Buffered clock outputs (4 pcs)
- Very flexibel system, due to the modular arrangement (possible to try different components and setups easily)

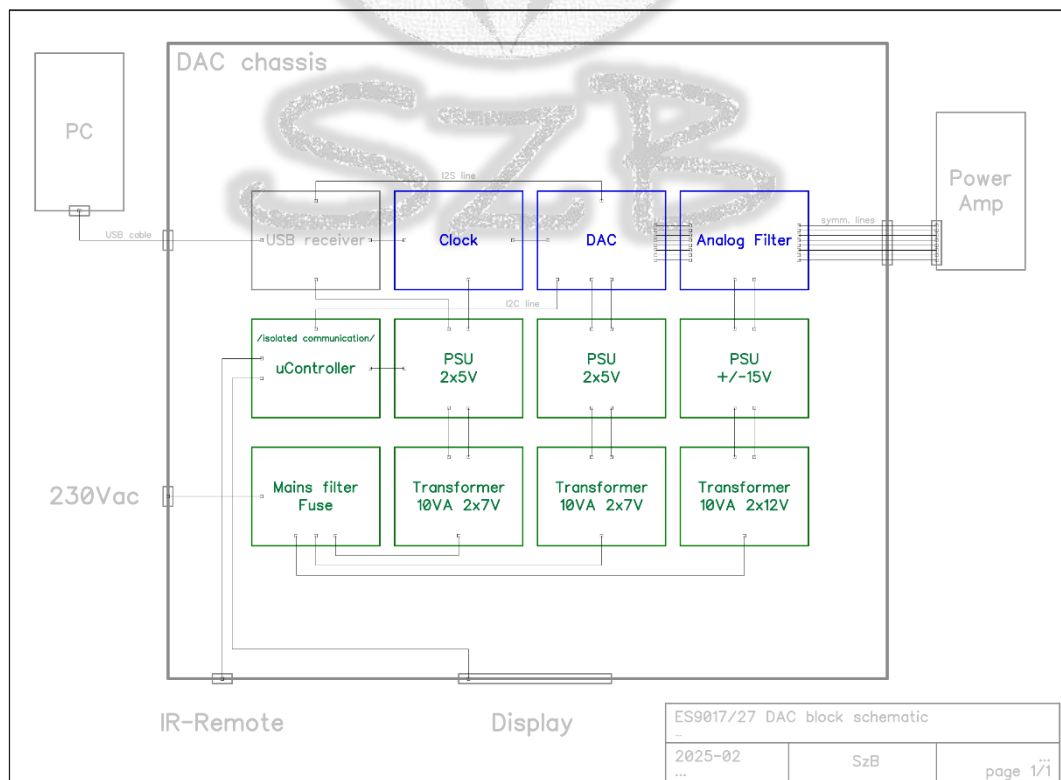


## Drawing, block schematic

The DAC panel is stacked on the top of the Filter panel. The reference voltage regulators (AVCC) must be added separately.



Below showed a possible device inside arrangement. The blue marked areas are part of this offer. If needed, I can support PCBs to the green marked (PSU and controller part) too.



## Technical parameters

Item (PCB)	Dimensions [mm]	Layers	Color	Notes
DAC	79 x 61	4	blue	1.6mm thick, FR-4, 1oz Cu, HASL finish
Filter	79 x 100	2	blue	
Clock	34 x 100	4	white	

### Connector patterns designed for

- Power supply: screw-terminal (2-3x, 5mm leg distance, max. 1.5mm<sup>2</sup>)
- Signal lines and jumpers: pin-headers (2.54mm)
- Clock signal: U.FL coaxial connector
- Mounting holes: M3 screws and spacers

## What else do you need for a complete DAC device

- A multichannel digital receiver with I2S outputs (e.g. DIYinhk)
- Mains transformers and voltage pre-regulators, especially +/- supply for the opas (I have in sortiment!)
- 2 pcs of low-noise analog voltage reference regulators (e.g. LT3042, I have in sortiment!)
- Optional: µController with IR-receiver and display (e.g. Arduino Nano, I have in sortiment!)
- Chassis, wires, connectors, ect.

## Contact, ordering

SzB – Audio (Austria)

E-mail (PayPal): [szb.audio@pm.me](mailto:szb.audio@pm.me)

Set price (3 pieces of bare PCBs) ..... 40 € (w/o shipping)

## Terms and conditions

*The prices include only the bare PCBs (w/o components) and documentation if available or desired. - For optionally populated boards please ask, it must be individually determined. - The delivery date can be dependent of the actual numbers of products on stock. It will be confirmed before buying. - The shipping costs will be determined individually and confirmed also before buying. - Please consider the offered sets, if you want to build a complete device. There is a price advantage. - It is strongly recommended to have the necessary skills (e.g. soldering small SMD parts) and knowledge if you want to assembly devices like these. Electricity can be dangerous and cause serious injury or death. I have NO responsibility for the possible consequences caused by misunderstood or anything else! If you are unsure, please ask. – In the case when you notice a mistake by the products or you have a better solution in your mind, your opinion is welcome! – For individually circuits and PCBs please ask. - The shipped products are my intellectual properties.*

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