BAV - 2019

VITUS AUDIO – SIA-030

VITUS AUDIO – INTRODUCTION OF SIA-030

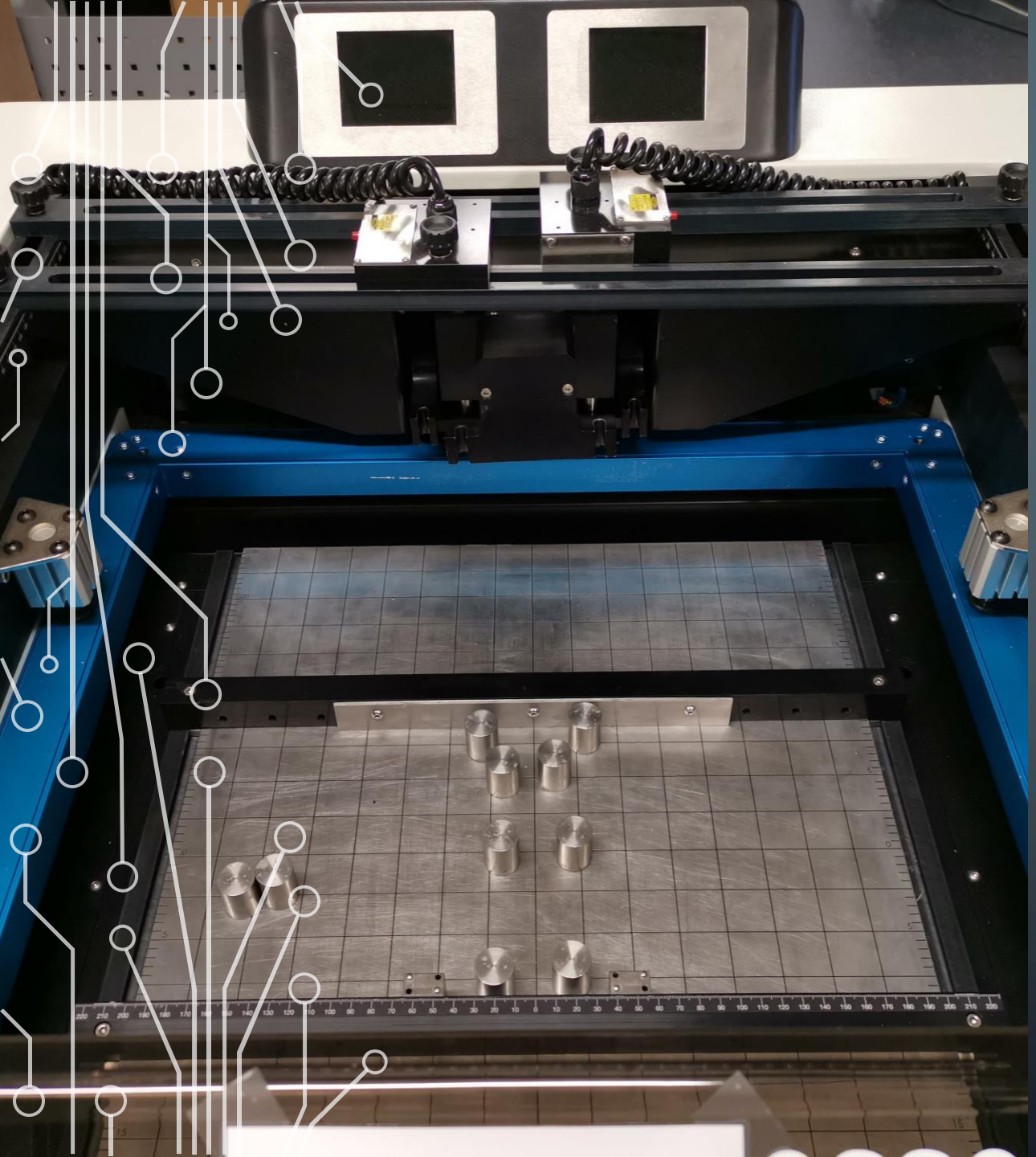
- Built on a foundation of knowhow and inhouse quality production.
  - Approx. 12 years of pedigree in integrated amplifiers
  - In-house PCB production facilities of the highest quality available
- The new SIA-030 preview (To be introduced officially in May 2019)
  - The background, and ”motivation”
  - The design
  - Some technical breifs.

THE SIA-030 +12 YEARS PEDIGREE

- 1Q2007 – introduced the SS-101 – Signature Series
- 3Q2007 – introduced the SS-010 – Signature Series
- 1Q2010 – introduced the SIA-025 – Signature Series
- 3Q2010 – introduced the RI-100 – Reference Series
- 2Q2018 – introduced the RI-101 – Reference Series
- 2Q2015 – introduced the MP-I201 – Masterpiece Series
- 2Q2019 – introducing the SIA-030 – Signature Series – only 1,5 years delayed! (original planned release 4Q17)

INHOUSE PRINTED CIRCUITBOARD (PCB) PRODUCTION

- PCB itself is manufactured at a subcontractor.
- All component placement is handled inhouse, with absolute state of the art production machines.
- This gives the highest design – prototype – re-run to full production flexibility.
- It also provides the fastest re-run time possible (a few days instead of weeks)
- And most importantly – it provides the best possible quality overall.

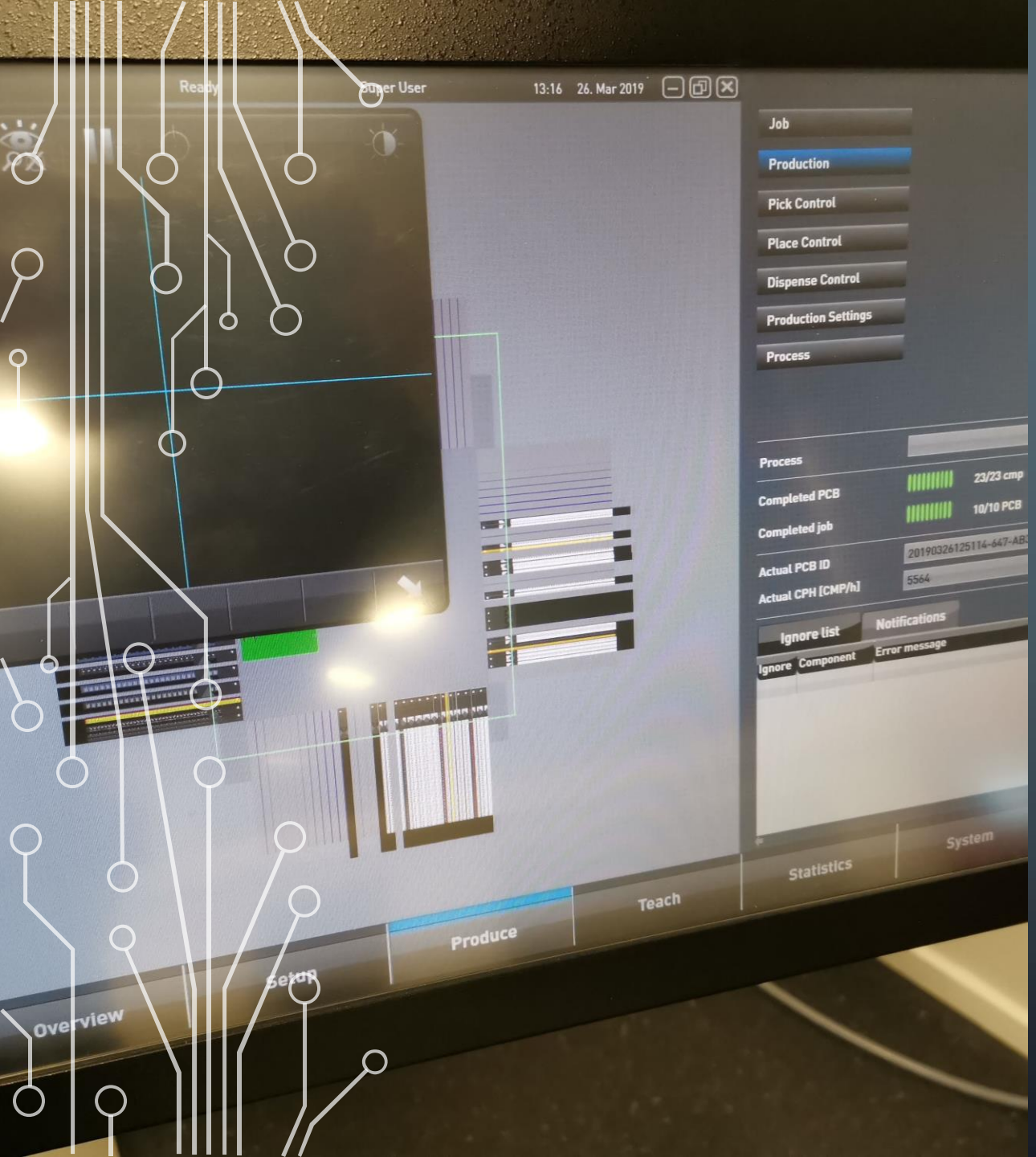


1ST. PROCESS - SCREENING

- Solder paste is added to the board.
- If quality fails here – overall quality will suffer, due to bad solderings ect.
- Laser pointers, and vision used to achieve the highest quality possible.
- New and even better machine has been ordered – an investment of another 100.000€

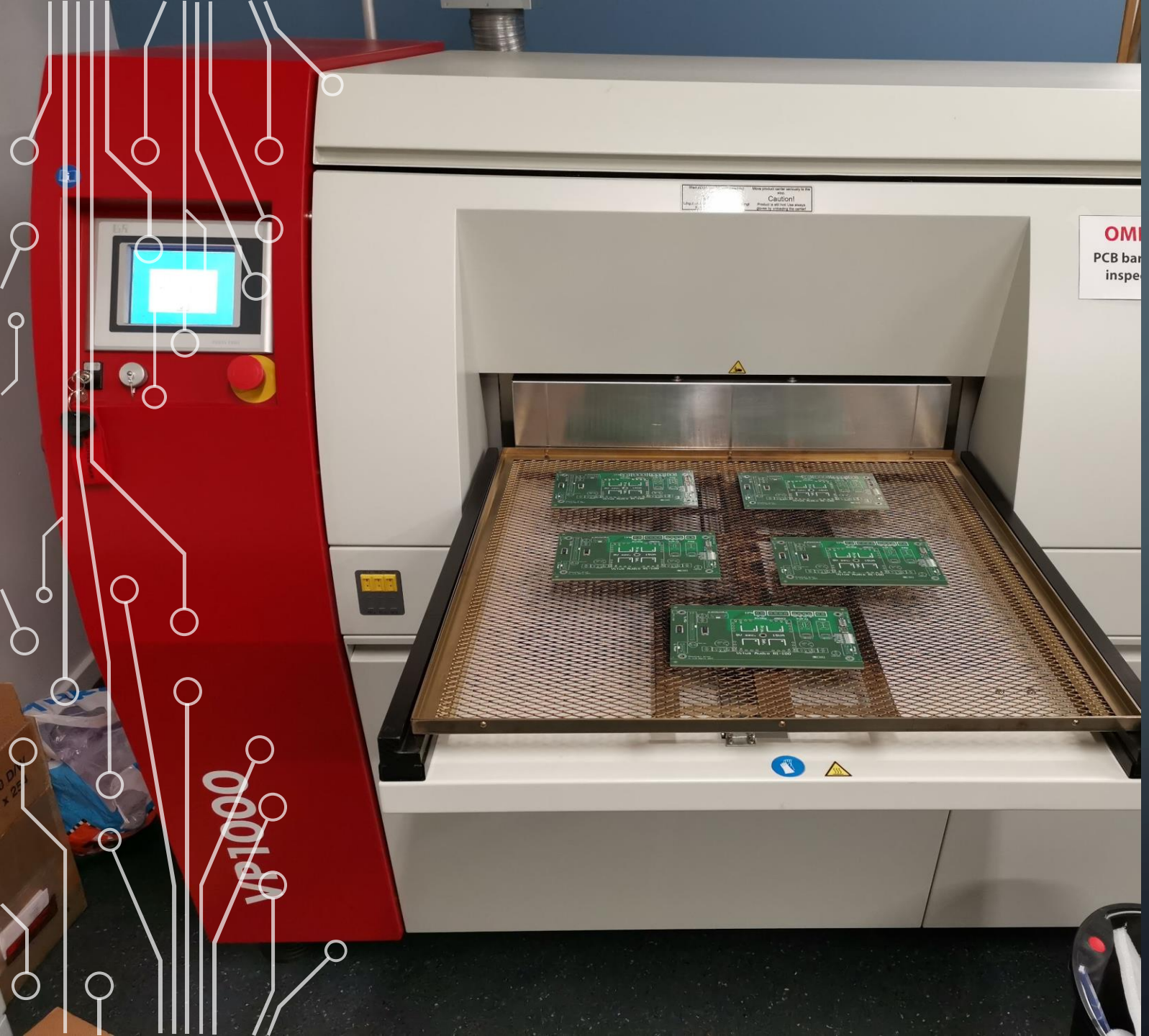
2ND. PROCESS – PLACING COMPONENTS

- Pick & Place machine
- Highest quality available
- Down to smallest component's available today
- Most intelligent MMI
- Highest flexibility possible
- Highest IQ storage communication available.



2ND. PROCESS - MMI

- Best in class MMI
- Gives optimal control, and repeatability
- Super fast and high reliability



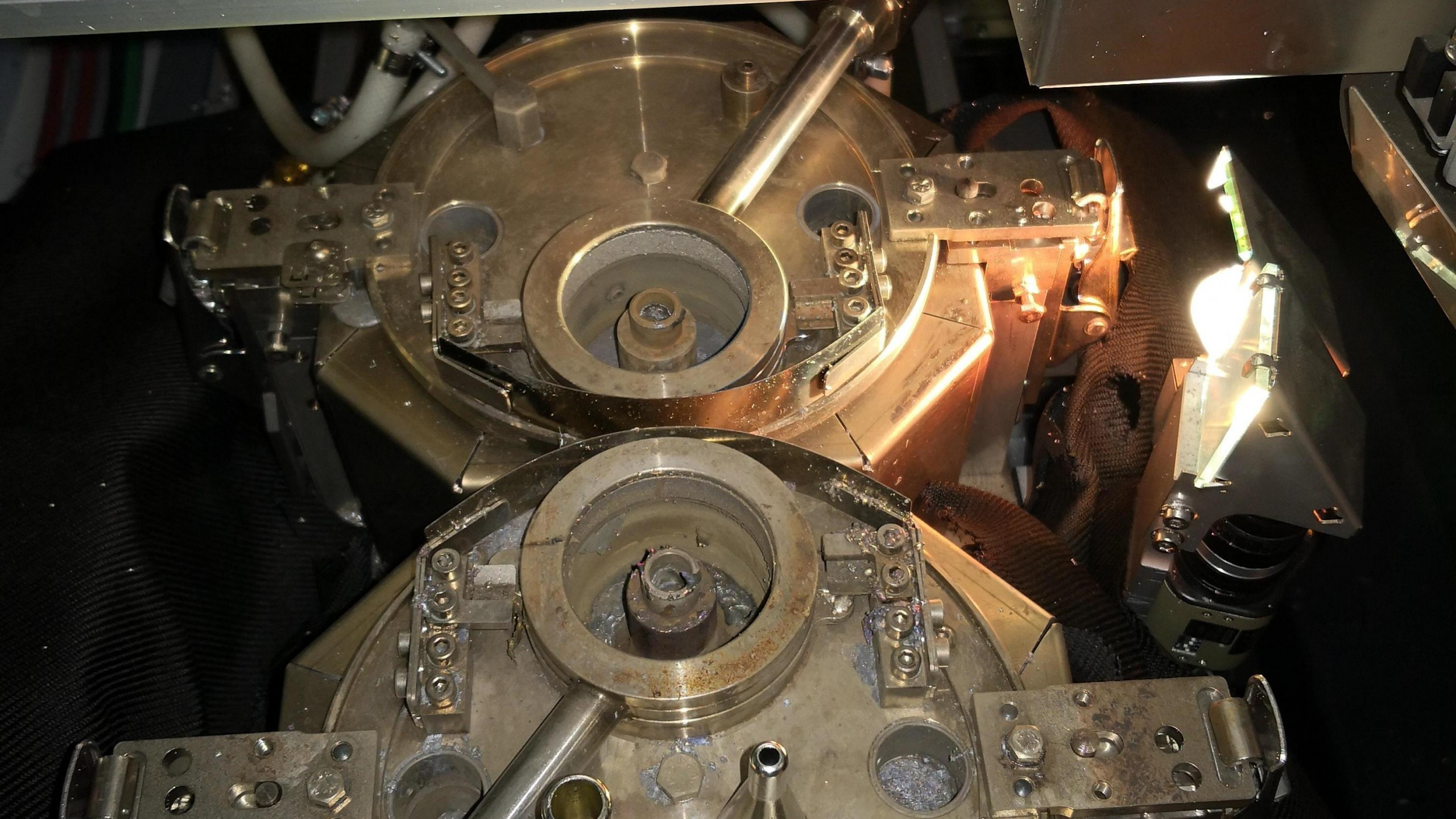
3RD. PROCESS - SOLDERING

- Vapour Phase soldering of SMD components.
- Primarely used in Space and Mill. Spec products.
- Most reliable soldering available.
- Rarely used due to slow process, and very high price on the machines.


OMRON
PCB bareboard inspection?
ASSCON
Vapor Phase Technology
VP1000
Dynamic Profiling
OMRON
PCB bareboard inspection?
fino.

4TH. PROCESS – LEADED SOLDERING

- Selective soldering technology
- Solders through hole (leaded components, like power resistors, capacitors ect.
- Solders each point individually, which gives the best quality leaded soldering
- Adds less stress to components and board, for very high lifetime.

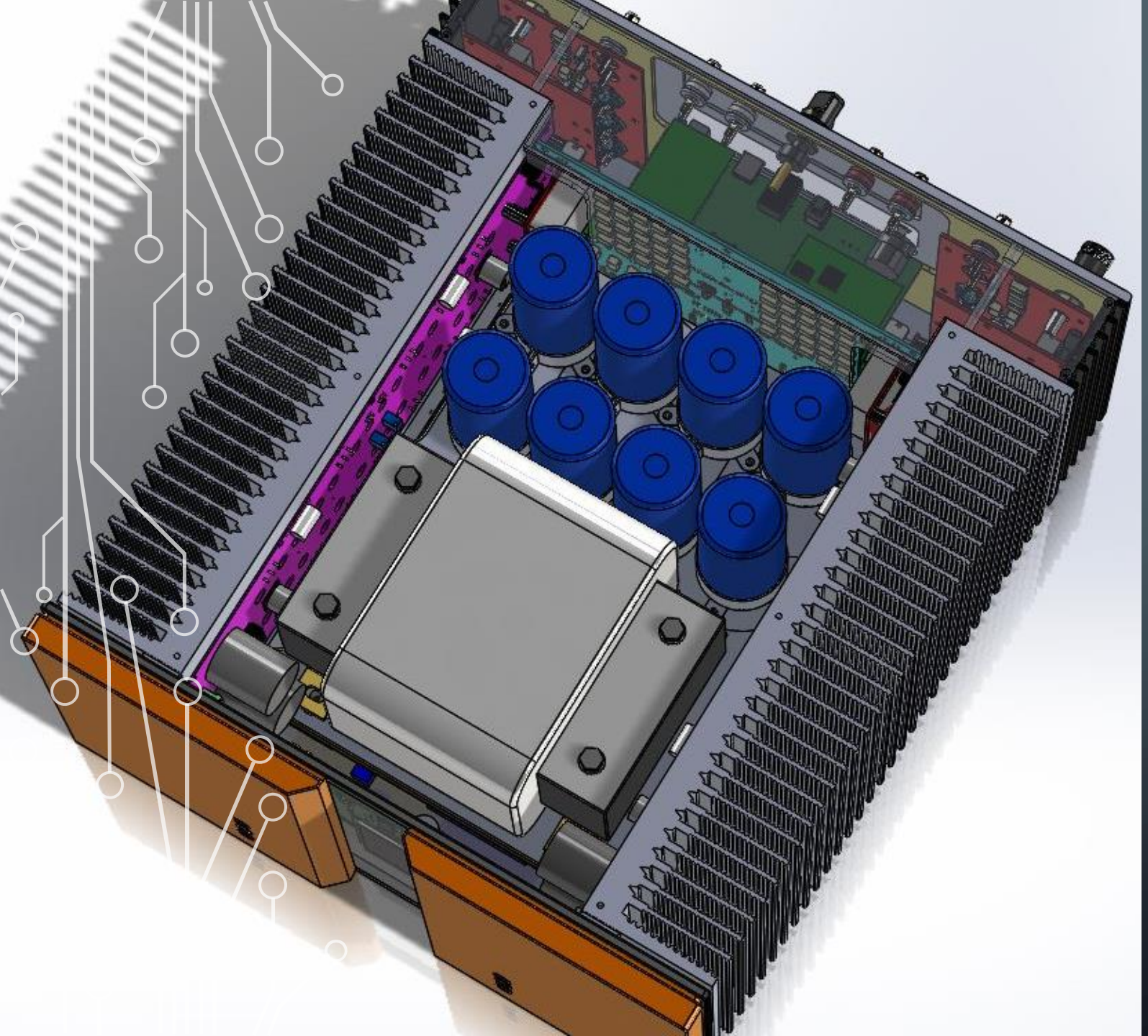


5TH. AND FINAL PROCESS – OPTICAL QC

- The final and very critical stage – Quality Control of the boards
- Stores results in database based on serial# of each board.
- Checks:
  - Soldering quality
  - Orientation of components
  - Correct placement
  - Value of component
  - Ect.

STORAGE.

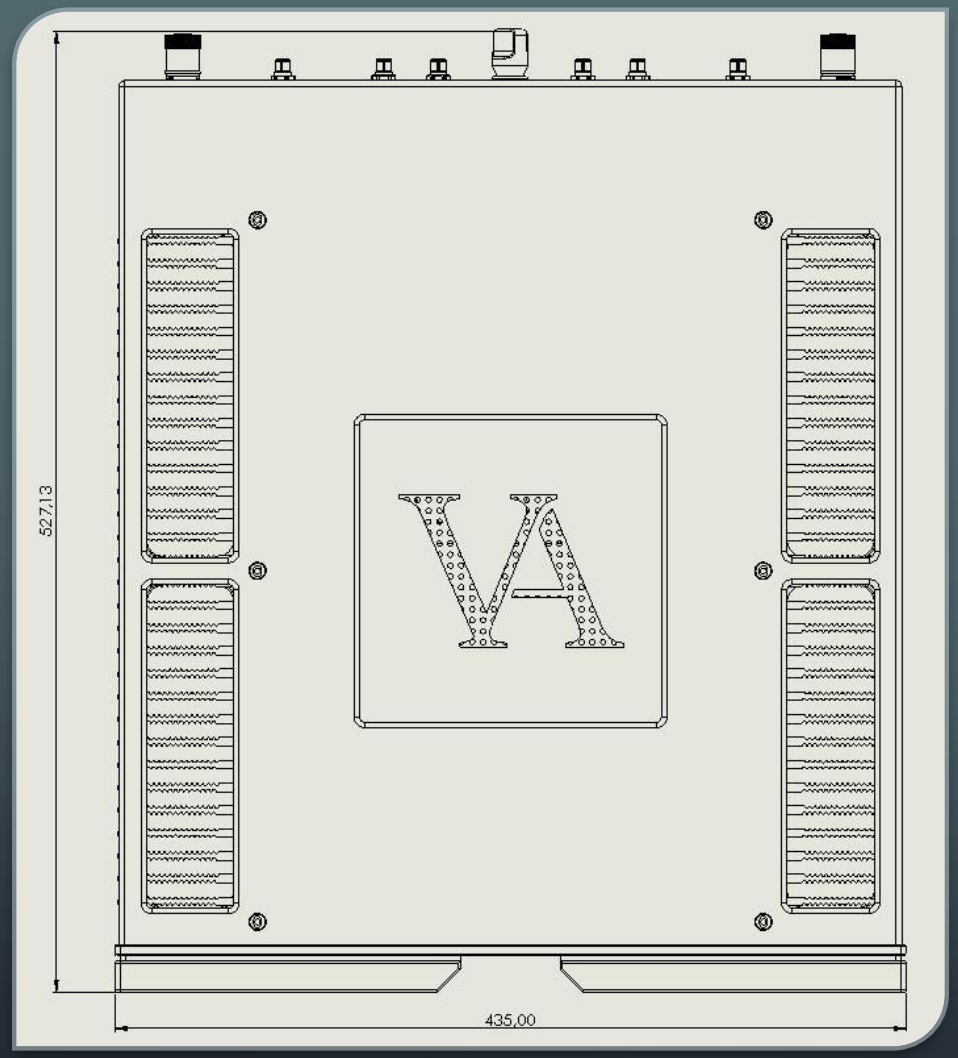
- All components are stored in correct temperature, humidity and air pressure
- Intelligent communication on amount of all components on stock with Pick & Place machine.
- Intelligent communication with ERP system, for placing purchase orders.
- Safeguards ease of production flow, lifetime of components.

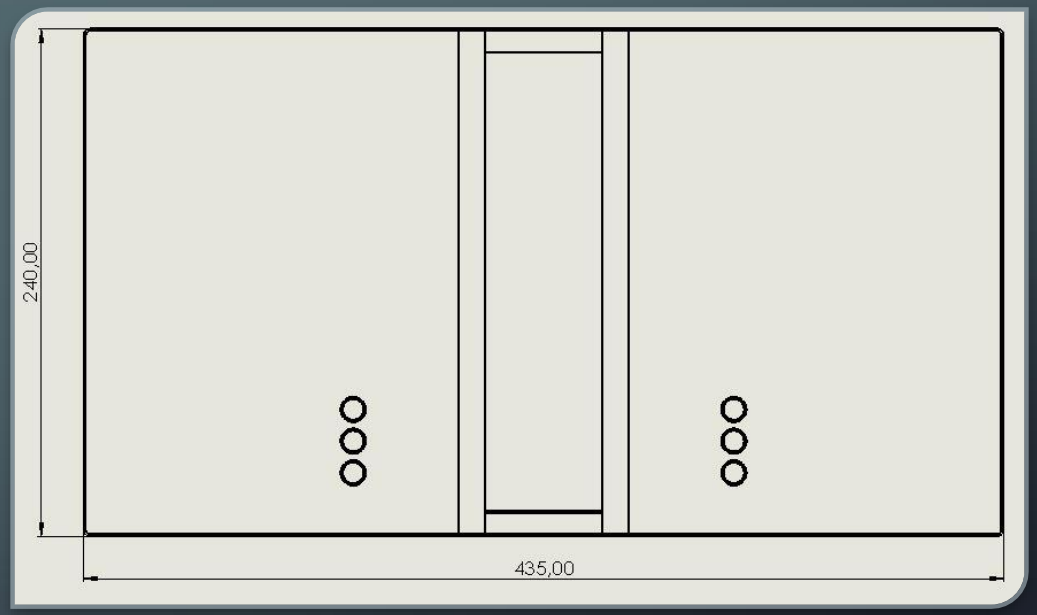


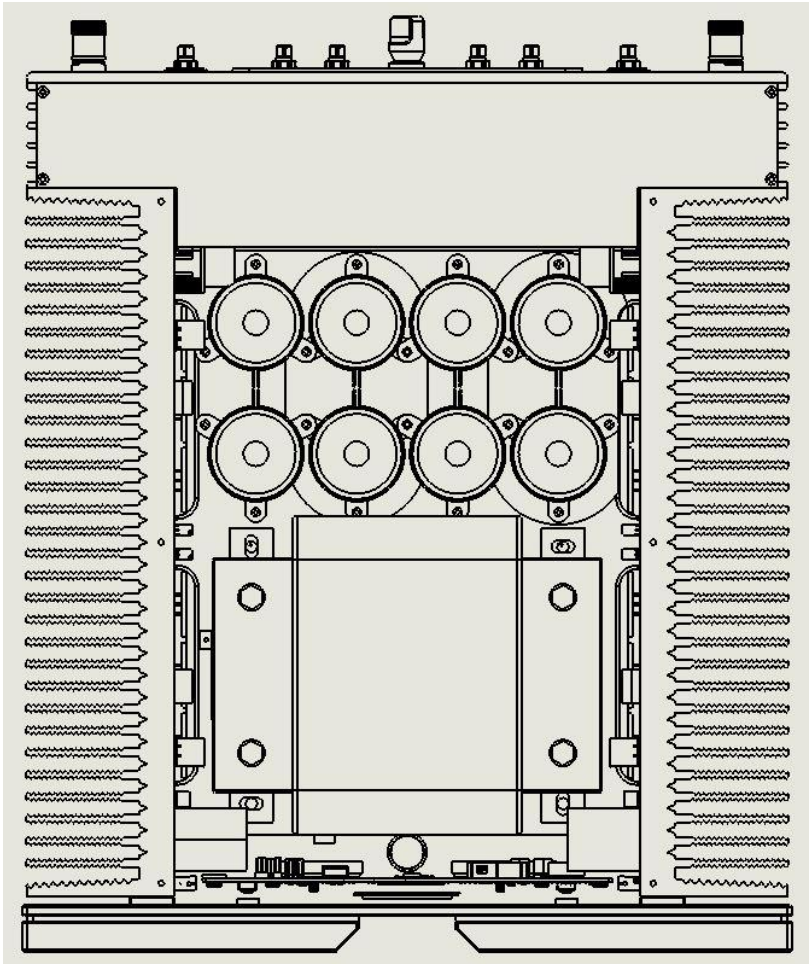
PREVIEW OF THE SIA-030

- Overview of mechanical design
- Overview of specification
- Overview of functionality
- Overview of options.

Mechanical size (WxHxD): 435x268x530mm
Expected final weight: approx 55kg.

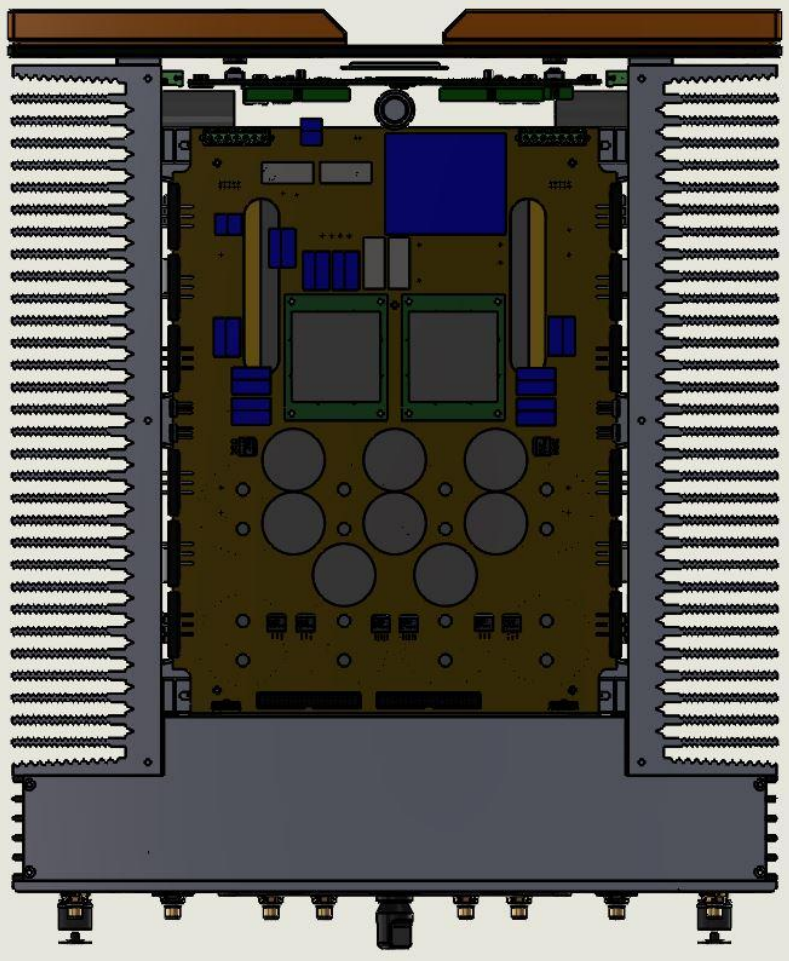






INTERNAL OVERVIEW – TOPSIDE

- 2.2KVA custom design transformer, vibration suspended.
- Approx. 400.000uF pre-capacitor bank
- Shielded preamplifier internal “chassis”
- Airflow optimized for maximum cooling with no fans.

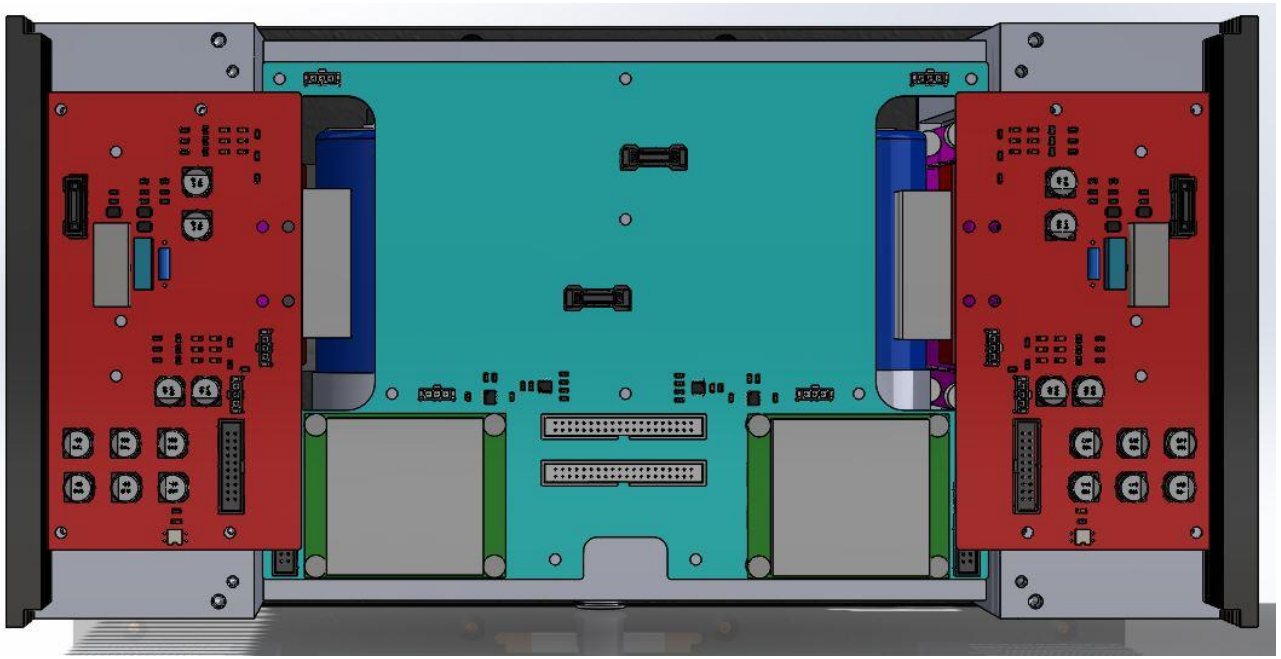


INTERNAL OVERVIEW – BOTTOM SIDE

- Extra transformer for all logic/CPU ect.
- Secondary capacitor bank of approx. 216.000uF
- Fully regulated PSU, also for output stage – similar to what is found in our MP-M201 4 chassis mono amplifiers.
- Key regulation technology insulated in add-on modules for easy upgradability, and extra shielding.

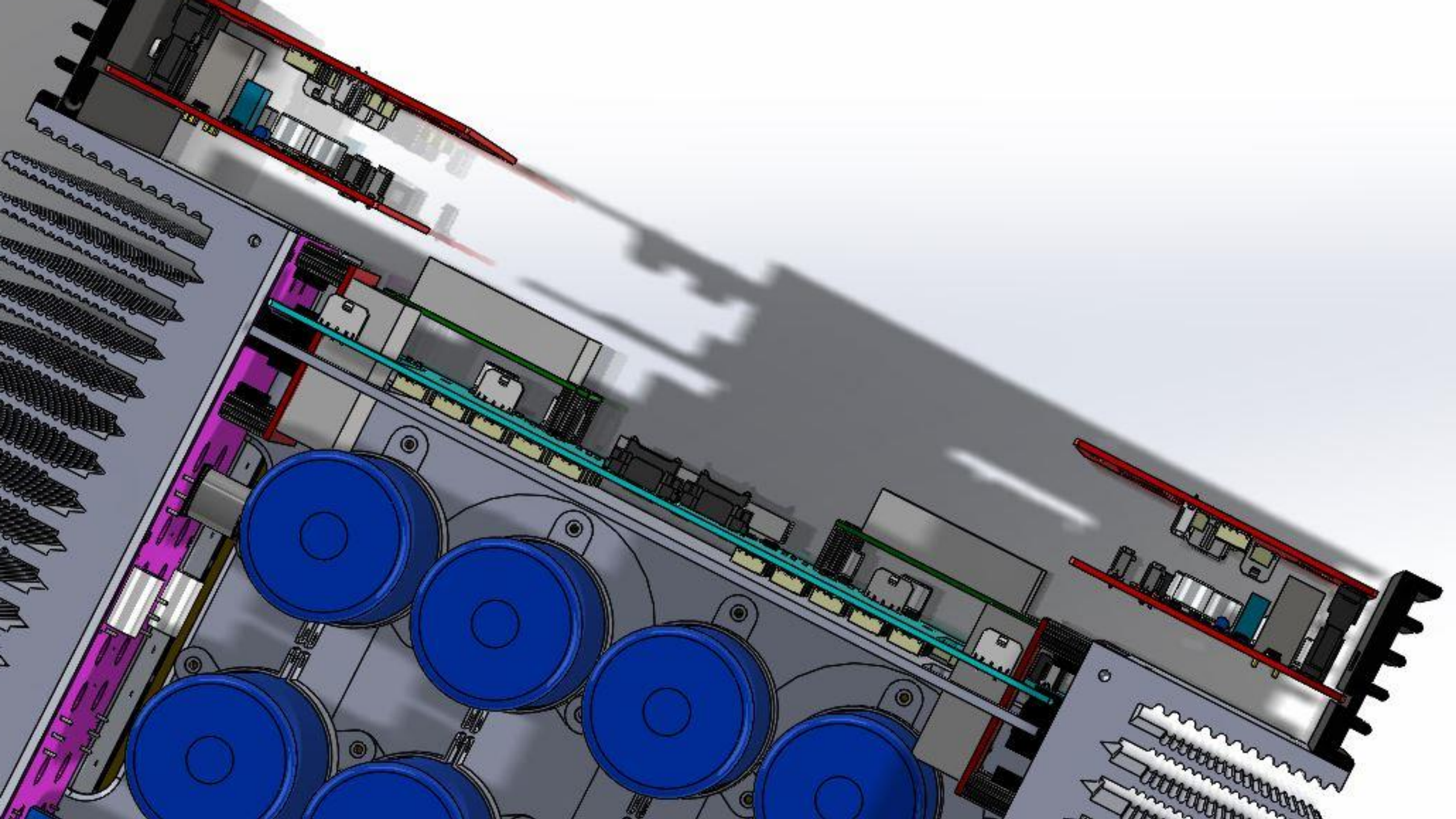
THE REAR PLATE

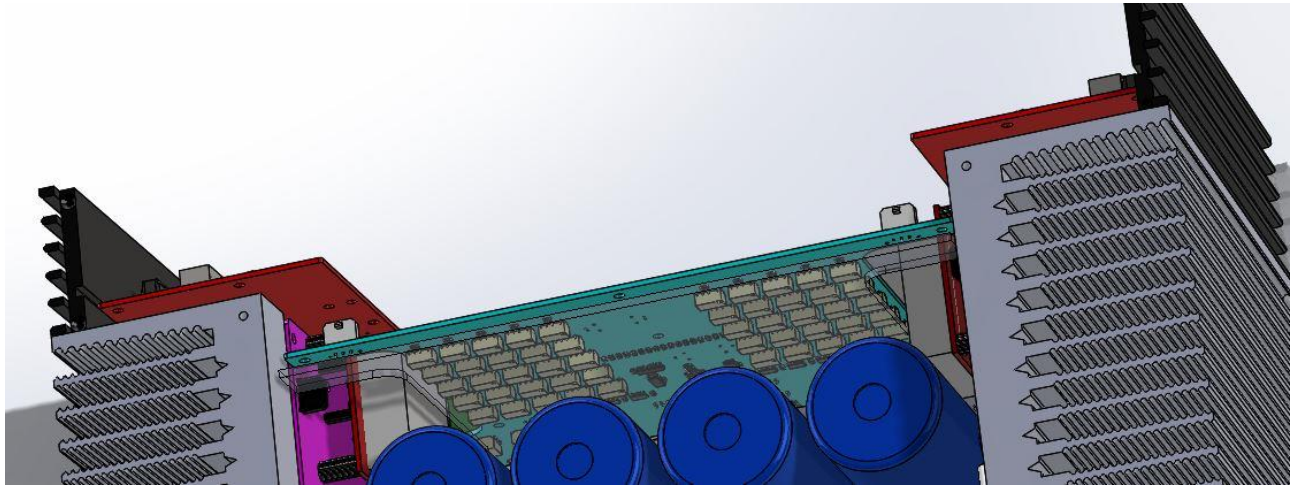
- Everything separated nicely, and in complete mirror configuration
- Standard inputs: 2x RCA un-balanced and 3x XLR fully balanced line inputs.
- Speaker Outputs are true balanced.
- Pre-out un-balanced to be compatible with most active subs.
- RJ45/USB logical inputs for easy firmware upgrades.
- Optional Phono stage and DAC/Streamer.



PREAMP SECTION

- Separate input selection board. Placed directly @ input connectors.
- Main preamp board paced at shield plate, which offers good shielding from especially power transformer.
- As usual using our modular design, for easy future upgrades.





THE VOLUME CONTROL

- Placed on the back of the preamplifier board.
- New design taken from the MP-L201.
- Offers 0.5dB steps on every step.
- Signal path approx. 20mm though complete volume.
- Zero influence on bandwidth.

SUMMARY AND SPECS

INPUTS:

Linestage:

- 2x unbalanced RCA inputs
- 3x true balanced XRL inputs

Optional Phono stage:

- 2x unbalanced RCA inputs

Optional DAC/Streamer:

- 1x AES input
- 1x SPDIF (RCA) input
- 1x Ethernet for streaming
- 1x USB supporting upto 2x DSD
- 1x Optical input for TV ect.

OUTPUTS:

- 1 set balanced speaker outputs
- 1x unbalanced RCA pre-out for active subs or bi-amping

SPECIFICATIONS:

- 30W kl.A in 8ohm RMS
- 200W high biased kl. AB in 8 ohm RMS.
- Powerrating almost doubles for 4 ohm
- Kl. A / AB mode switchable
- Fully regulated PSU including output stage
- Linestage gain upto 12-18dB
- Phonostage supports MC/MM with max gain upto 70dB (expected)

THANK YOU FOR LISTENING!

….. And remember:

Listen to music, not equipment!

Rgds

The Vitus Audio / employee band ☺