



**Synästec Audio**

**Volatus 200**

Music that inspires

## DESIGN CONCEPT

Physically, a perfect stereo system should reproduce source signal accurately, without any distortion. Data stored in source media should reconstruct what was recorded. Emotionally, a stellar audio system should be able to evoke aural and other sensations in the audience. It should present not only accurate sound, but also inspiring music.

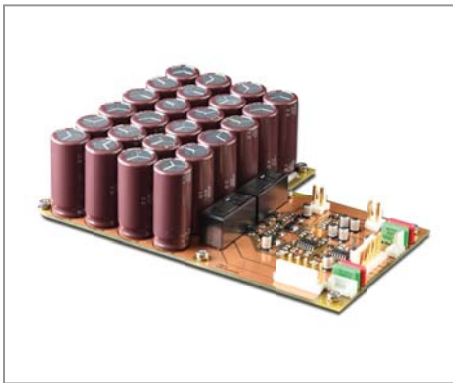
The ultimate goal of the Synaestec team is to break the barrier between the physical and emotional realms because we believe there is a strong correlation between an excellent listening experience and superior measurement results. We at Synaestec employ the following means to achieve this goal:

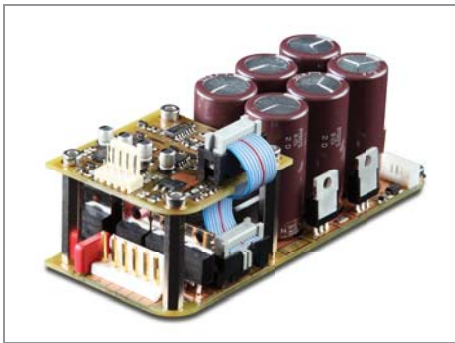
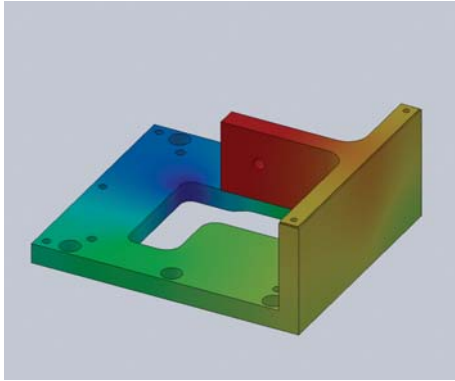
- Develop products with cutting-edge technologies;
- Measure and test them with the highest precision equipments under the most demanding conditions;
- Have the final products test-listened to by professional audiophiles.

## OVERWHELMING POWER SUPPLY

A power amplifier converts electrical energy from the mains into complex audio signal. An ideal power supply should have high power handling capability and be free of impurities. Volatus 200 approaches the ideal by equipping two 250VA toroidal transformers and an extremely low ESR capacitor array with a total capacitance of 36,000 $\mu$ F. This capacitor array is capable of generating an instantaneous current of over 60A. The two transformers were potted in-house with unique elastic polyurethane to get rid of mechanical vibration. All power supply components are located in a partition of the chassis which is fully isolated from the rest of the amplifier. This partitioned architecture eliminates interference from stray magnetic field and other circuitries. In addition, a dual stage heavy duty AC-line filter is used to completely block all noises that might enter from the AC power line.

Special care has been taken to the most noise sensitive blocks of the amplifier circuits. There the power supplies are further stabilized by two dedicated double-stage voltage regulators that improve the noise figure of the amplifier. That means a quieter amplifier is achieved.





## HIGH PERFORMANCE AMPLIFIER UNIT

The core of the Volatus 200 is a high performance switching amplifier unit. Unlike the conventional class D amplifier, it features a unique error correction loop which detects residual error directly from speaker binding post. Excellent distortion and intermodulation performance is maintained throughout the entire audio bandwidth, regardless of load impedance. It simply drives the most demanding speaker load effortlessly.

In order to ensure the Volatus 200 to have the highest common mode rejection, the power amplifier employs an instrumental differential audio input which has very high input impedance.

The amplifier unit is directly mounted on the chassis to obtain superior thermal coupling. Together with an efficiency of over 90%, minimal heat is generated and stable operating temperature can be maintained no matter under how much stress or for how long the amplifier is driven.

Each circuit board layout is carefully optimized to avoid mutual noise coupling. With all these measures, the dynamic range of the amplifier is up to 116dB! Audio signal can be revived without loss of any detail!

## FULL PROTECTION

The mechanical construction of the Volatus 200 is straight forward. It comprises only a top chassis, a bottom plate and four feet which are machined from solid T6082 aluminum. The strength of the top chassis is further enhanced by the internal partition walls. This simple construction not only shields the amplifier from EMI and RF interference excellently, but is also extremely strong to decouple any mechanical vibration efficiently.

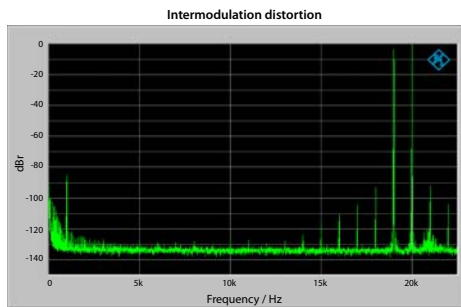
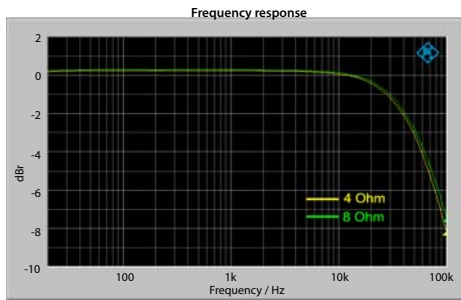
Sophisticated protection circuits are implemented in the Volatus 200 to ensure all-round protection against short circuiting, overheating and DC leakage.

## FINAL JUDGMENT

We have gone into so much technical detail. But we have not forgotten the final and most important judgment—the listening! Be astonished by the detailed but powerful music endowed by the best quality amplifier. Experience the emotions evoked by the voice from your speakers driven by the new Synaestec system.



## SPECIFICATIONS



Power amplifier:	Volatus 200
Power output:	200 W RMS, 8 ohm (THD < 1%) 400 W RMS, 4 ohm (THD < 1%)
Frequency response:	10 Hz to 45 kHz (+0/-3 dB)
Voltage gain:	26 dB (+/-0.5d B)
THD + N:	< 0.01% (10 Hz to 20 kHz)
Intermodulation distortion:	0.0085% (2nd order) 0.0018% (3rd order)
Signal to Noise ratio:	> 115 dBA (A Weighting)
Damping factor:	> 400 (10 Hz to 1 kHz)
Input impedance:	100 kOhm asymmetrical 200 kOhm symmetrical
Power consumption:	550 Watt maximum 8 Watt standby
Dimension:	400 mm x 307 mm x 87 mm (W x D X H)
Weight:	18.3 kg net (per channel)
Color:	Black, Stainless steel, Silver



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