

Opera Quinta

The new Opera Quinta Is an evolution of the configuration of the previous model. Thanks to a careful study of the loudspeaker's individual components, we were able to exceed the 87-88 dB sensitivity limit, even reaching 91 decibels, that guarantees excellent dynamics and very linear performances even at high signal levels. Due to contained phase rotation the load seen by the amplifier does not appear critical at all, guaranteeing good driveability even with amplifiers of limited power.

The project

The speakers used for this project have a new design and have been developed in collaboration with Scan Speak.  Due to the experience gained by the prestigious manufacturer and the characteristics we wanted for this loudspeaker, we were able to combine excellent extension, sensitivity and very low distortion. The aluminium membranes used from the Danish manufacturer have a so low-level high-frequency resonance that that left us amazed.

The ratio between the various dimensions has been carefully optimised to achieve exciting listening characteristics, which is the ultimate goal of our work.

The midrange follows the same construction philosophy while the tweeter is made with a 28mm soft dome.

The keyword of the new design still combines two qualities that we consider important but are often underestimated:

* the reduction of internal reflections, which can worsen the clean characteristics of the loudspeakers,
* optimised characteristics for musical performance in the room.

To improve sound articulation, the new shape of the cabinet was the result of countless tests that led to minimising midrange reflections. This was achieved thanks to the internal design with no walls parallel to each other and a relationship between the various dimensions that minimises standing waves.

The sound pressure emitted by the individual walls was measured with excellent accuracy with an accelerometer and an in-house developed technique. The cabinet has therefore been optimised to reduce these emissions, measured at high power, to achieve almost inaudible noise level and in any case below the average ambient noise.

Careful attention was also paid to the loudspeaker housings on the front panel, which is machined internally to reduce reflections from inside the cabinet that can pass through the loudspeaker membranes and colour the sound.

The reflex duct was dimensioned to avoid turbulence phenomena even at higher power when listening to music. At this point in the development of the box, it was relatively easier to design a not excessively complex crossover filter in order to optimise the acoustic phases of the individual transducers.

By using components of audiophile excellence (Vishay anti-inductive resistors and Mundorf capacitors), we were able to maximise both the acoustic scene and the respect of sound planes.

These are two characteristics that we consider very important in musical reproduction as an evolution of timbral balance alone.

In addition to this, the use of excellent components allows us to count on performances that do not degrade over time.

 The crossover filter is designed to have the desired acoustic response, to achieve excellent coupling between the speakers, both at the intersection of the two woofers and the midrange, either at the transition between the two woofers and the very critical medium-high range.

This new design privileges the listening sensation over standard measurements that cannot detect many of the audiophile characteristics that we consider much more important.

 Technical specification

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|   | **Quinta V2** |
| Type | Three-way |
|  | Rear Bass-Reflex |
|  | Floorstanding |
|   | Speaker |
| Drivers | **Tw**26 mm Soft Dome TweeterDouble Ferrite Magnet, Alu Frontplate |
|  | **Mid**150mm Coated Fiberglass ConeFerrite Magnet  |
|  | **Woofer**2x 180mm Black anodized Alu Cone, Ferrite Magnet |
|   |   |
| Sensitivity (2.83V/1m) | 91dB |
| Frequency response (-3 dB) | 42Hz - 21000Hz |
| Nominal impedance | 6 Ohms |
| Minimun impedance | 4.3 Ohms |
| Maximun power: | 200W without clipping |
| Recommanded amplifier power | 25 - 150 W |
| Crossover frequenciency | 250 - 2300Hz |
| Dimension | Cabinet only: 237x1100x440mm (lxhxd) |
|  | Complete loudspeaker (with base): 319x1158x529mm (lxhxd) |
| Net Weight | 39Kg |