

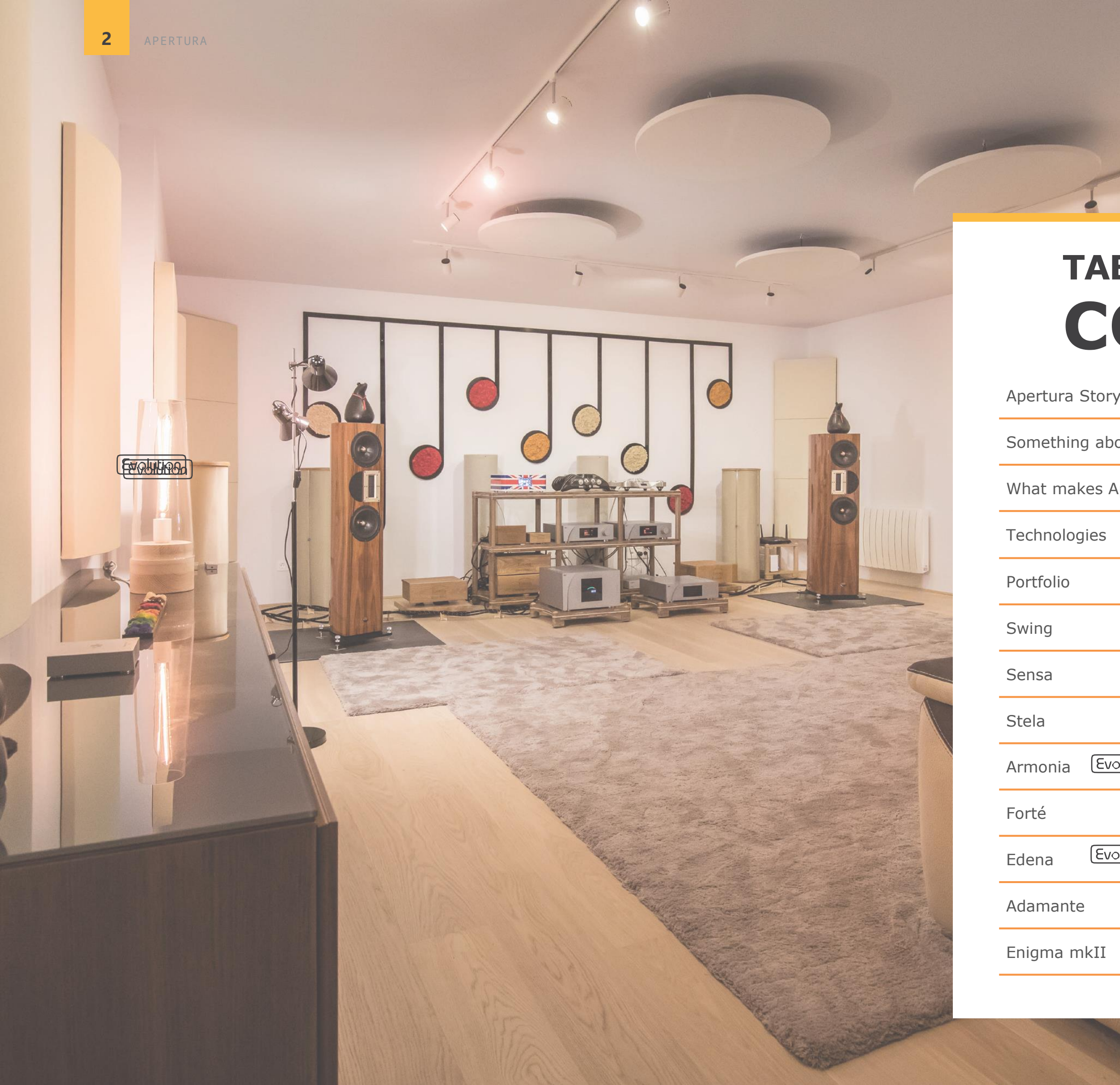


**BROCHURE**

**20  
25**

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[www.apertura-audio.com](http://www.apertura-audio.com)



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# APERTURA STORY

The story starts with **Christian Yvon** and his passion for sound restitution. He was always wondering why traditional loudspeakers were unable to provide – from his point of view- the experience of the original sound which was a major frustration.

In 1978, he has created his own laboratory to lead sound and acoustic researches; he has developed several new technologies while looking for reaching as close as possible the musical information recorded, not more, not less; the proprietary **DRIM** cross-over structure is one of them.

In 1979, he has worked for **Goldmund** speakers and he has developed many of their products such as “Dialogue”, “Apologue”, “Analogue” and “Epilogue” loudspeakers. He has also worked for Focal, Sonus Faber, and many others.

In 1982, he has decided to develop his own loudspeakers choosing the name of **Apertura** as a brand.

This challenge was a start moving towards a new concept: reproduce the purest sound without any additional resonance, no extra coloration, any phase error and impulse response delay.

The first of his speakers was “Reference” introduced in 1983. It has been quickly followed by many others, and among them, Tanagra in 1990 and Kalibrator in 1999.

He has developed a full range of loudspeakers over decades.

By the end of year 2009, he has decided to end its association with the company manufacturing **Apertura** loudspeakers at that time, as the quality level and strategy were no longer in line with his expectations.

In 2010 he has met **Eric POYER** and then they have decided to set up together a new company named “**STENTOR**” to develop, manufacture a full range of **Apertura** products.

**Eric POYER** has earlier worked for many years in a well-known High- End manufacturer, before creating his own OEM audio company more than 20 years ago.

As a result of this partnership, Eric and Christian have set up a full new range of products along the past 14 years.

**Stentor – Apertura** is a family business company: it is a small entity, very reactive, where the whole team is 100% committed to build the perfect loudspeaker. As a part of this team, Christian is in charge of acoustic design and Eric is responsible of mechanical design and production.

**Apertura** loudspeakers are handcrafted in France at our head office located near Nantes on the West Coast; we use very few and tightly selected subcontractors. Cabinets and drive units are rigorously selected among the best and every manufacturing step is made internally in order to build an high- end product: acoustic and mechanical design, drive units test and matching, filter design and manufacture, assembly and finalizing individual strict tests before packing.

Our best achievement is to make every audiophile acquiring an Apertura loudspeaker 100% satisfied.



Made in France

# SOMETHING ABOUT US

## Celebrating 42 years of passion for music.

In 1983, Christian YVON introduced the first Apertura speaker: "the Reference".

Since this date, many Apertura models have been launched, sharing the same philosophy: the faithful reproduction of the sound.



Apertura speakers are built like no others. Since 42 years we follow our own path, far from received ideas and "esoteric" theories.

### OUR ASSETS:

Non usual cabinet shape and laminate construction. Intensive damping treatments for standing waves cancellation.

Every single crossover adjusted to match drivers sets measurements.

"DRIM" proprietary crossover technology.

Exquisite finishes with real high quality wood veneer and satin/ high-Gloss lacquer.

Quality is mandatory for us and attention to details a concern of every moment.

Apertura speakers are proudly handcrafted in our 900m<sup>2</sup> facility, closed to Nantes, west coast of France, from crossover to final product.



# What Makes Apertura Different



In a world where products from so many brands seem almost identical and buying decisions are increasingly made on price, Apertura speakers are as distinctive as they are different: different on the outside; different on the inside; different for a reason.

These days, design and production decisions are dominated by what is referred to as Value Engineering – a fancy term for building products down to a price, a policy that cuts costs by cutting corners. But at Apertura we understand that term differently. For us, the value of any audio component is inextricably linked to its performance, any design or manufacturing decision based on delivering the best possible musical and sonic results at the price. It means rejecting accepted practice and questioning norms, looking at new materials or new ways of using established ones, reverting to an artisan approach where constructing each product is the work of a single individual and the final testing of every product is carried out by the same person that production engineered the design.

The result is a range of speakers that reject the materials, construction, technology and topology found throughout their competition. The result is a range of speakers based on superior thinking, superior engineering and that deliver significantly superior performance.

That superiority is no happy accident, but the result of years of dedication and hard work. Apertura speakers look different because they are different – genuinely different – and those differences start with the people behind them...

Pioneering loudspeaker designer Christian Yvon is the man responsible for the acoustic design of all Apertura products. Creator of the ground-breaking DRIM crossover topology in 1978, his research and the innovative solutions it generated helped redefine loudspeaker performance and led to a long career as a designer and consultant to many of Europe's best known high-end loudspeaker brands, including the creation of Goldmund's speaker line and work with Focal and Sonus Faber. But increasingly he came to realise that it was essential to control all aspects of the design, ensuring that every element adhered to his essential principles, in order to maximise the resulting performance. In 2010 that goal was finally realised with the establishment of Stentor SAS, in partnership with Eric Poyer, a mechanical and production engineer with over twenty years experience in the audio industry.

Working together in close collaboration, they created the current Apertura line. The result is arguably the purest ever expression of Christian Yvon's thinking, with innovative engineering and use of materials by Eric Poyer eliminating

unnecessary, costly and ineffective elements to deliver unprecedented musical performance at incredibly approachable prices.

Exotic, high-end loudspeakers are necessarily destined only for the fortunate few. But if value is measured solely in terms of musical performance, rather than price or brand recognition, size, weight or the number of drivers, then taking that philosophy to its logical extreme, rejecting accepted theory and practice, questioning and evolving the way we use familiar materials, selecting solutions with that one, single goal in mind, can deliver remarkable results. Adopting such an approach produces products that are certainly different, but those differences make perfect sense, as soon as you appreciate their purpose. These are differences in the way the speakers are built, the way they look, but above all in the way they sound. These are differences you can hear. That purpose of these differences – Apertura's purpose – is simply the most music possible for the money invested.

Listen and it all makes sense.



# Technologies

## Low Storage Cabinet

### Curved walls – not flat, machined panels

The curved walls and asymmetrical shape of the Apertura cabinets is about more, much more than their clean good looks. Rather than the simple, machined MDF used in the vast majority of loudspeaker cabinets, the curved walls in the Apertura speakers are constructed from multiple thin layers of carefully selected HDF, bonded together and precisely moulded under extreme pressure, creating a structure that

is far stiffer and dissipates energy far more effectively than a single, monolithic slab. Not only does this approach raise the resonant frequency of each cabinet panel, it helps prevent it resonating at a single dominant frequency. Combined with the asymmetrical footprint that minimizes common dimensions and parallel sides between panels, strategically placed internal bracing and lapped construction at the joints (rather than the cheaper, weaker and less rigid butt joints normally used) this creates a cabinet structure with a diffuse resonant character and excellent energy dissipation and extremely low levels of coloration.

Double thickness panels in key locations like the top and bottom-plates ensure optimum rigidity where required, while the low-storage signature of the cabinet as a whole helps reduce the intermodulation distortion that can smear and cloud the mid-band or produce lumpy, one-note low-frequencies.



## Asymmetry And The Internal Air Volume

### Attenuation of internal energy through clever choice of materials and cabinet design

Many people believe that the benefit of non-parallel or asymmetrical cabinet walls is that they prevent standing waves. In fact, that's a misnomer. The use of curved enclosure walls has more to do with the stiffness of the resulting structure and its resistance to flexure. But that doesn't mean that controlling internal standing waves is not critical to loudspeaker performance. The drive units project just as much energy backwards as forwards and that energy has to be controlled if leakage from the enclosure isn't going to compromise the clarity of the sound. It is all about control. If you allow internal energy free rein, then it will produce dominant resonances that will re-radiate through the cabinet, the port and the drivers themselves. An adequate solution to this critical challenge requires more than just a bit of internal wadding: it needs a multi-faceted response. At Apertura we use a precisely calculated combination of internal damping materials, including our own, unique, proprietary pocketed sheeting, to influence the behavior of the enclosed air volume and its critical relationship to the drivers and reflex port.

By creating carefully calculated differential damping zones within the cabinet, minimizing the area of the rear panel and doubling the thickness of the top-panel (the two main sources of spurious acoustic output) we prevent the drivers' rear output returning to confuse the fragile musical information.





## Mechanical Grounding

**One spike – not three and definitely not four**

The unwanted rear wave can make its presence felt in many different and insidious ways. Although direct radiation of spurious acoustic energy is the most obvious, absorbing that energy creates its own problems. The primary functions of the cabinet are to load the drivers and contain their rear output, but once that energy passes into the cabinet structure, you've simply moved the problem from one place to another. In the worst case scenario, the vibrational energy passes through the cabinet and back into the drive units themselves, modifying their motion and thus their output, overlaying a delayed and distorted signal over the one you want to hear. It is crucial to provide a clean, direct exit path from the cabinet into the supporting surface – an effective mechanical ground. In theory, that's what the spikes fitted to the corners of so many loudspeakers are trying to achieve, but in practice they are woefully inadequate: too many and in the wrong place, they offer a confusion of multiple paths each from a different base energy level, compromising ground impedance matching and stability. Echoing the grounding principle he first developed at Goldmund, Christian Yvon employs a single ground path, placed exactly at the speaker's centre of gravity, with decoupled adjusters mounted on outriggers giving precise control over alignment and attitude. In this case simplicity is directly related to clarity – clarity of thought and musical clarity too.

## The DRIM Crossover

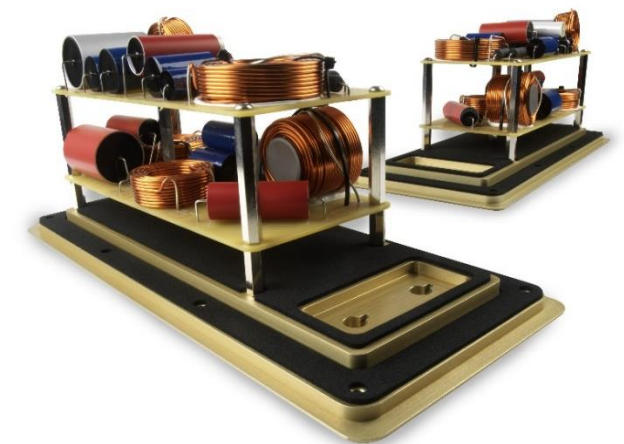
**Simplicity, phase coherence AND steep slopes!**

The crossover is the weakest point in any loudspeaker design, capable of (and often) doing untold damage to the time and phase coherence of the signal. Christian Yvon's revolutionary DRIM crossover topology, unique to his

designs, delivers the Holy Grail of speaker design – the phase coherence so critical for proper musical reproduction combined with steep slopes to remove unwanted and all too audible out-of-band driver artefacts. It is remarkable how many modern speaker companies have just 'rediscovered' the critical importance of out-of-band output! The problem with simple, low-order crossovers is that although they offer good phase coherence, their shallow slopes are slow to roll-off driver output, allowing break up modes and unwanted peaks to intrude on the signal. By combining phase coherent output with steep yet configurable slopes, the DRIM crossover allows the filter characteristics to be matched precisely to each individual driver. The Apertura speakers take this approach to its logical conclusion, not only relying on two-way designs to keep overall topology as simple (and musically un-intrusive) as possible, but using the adaptability in the crossover slopes to open up the possibility of using the wide-band ribbon drivers that other design paths find so problematic.

The DRIM crossover allows the steep slopes essential for such drivers to be carefully calculated. For each individual pair of speakers, first the drivers are measured and matched and then in each and every case, the crossover is tuned to the characteristics of the specific drivers it will be paired with. The end result is superb consistency, driver integration, pair matching and unprecedented system performance at this price level.

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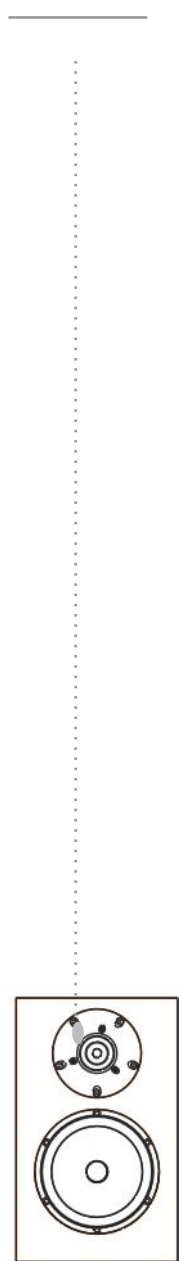


# OUR PORTFOLIO

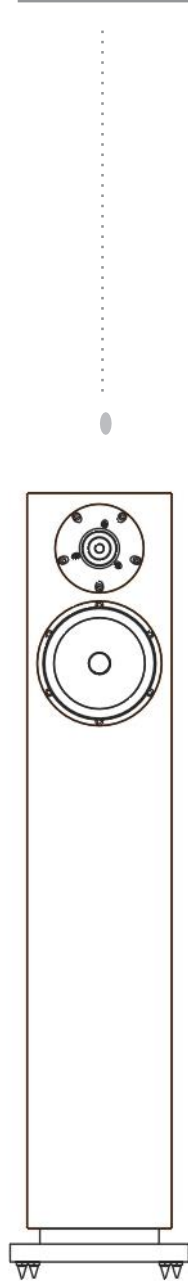
APERTURA RANGE



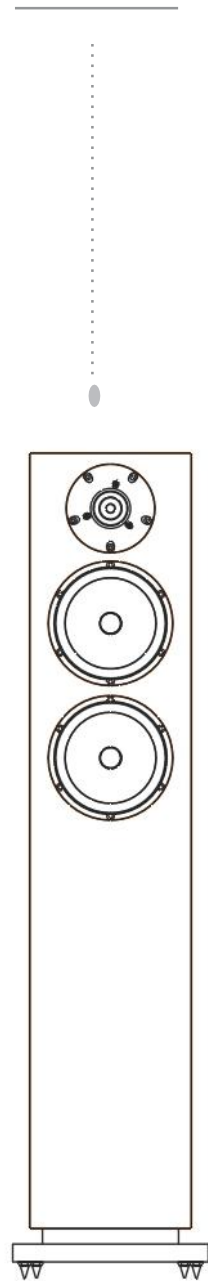
SWING



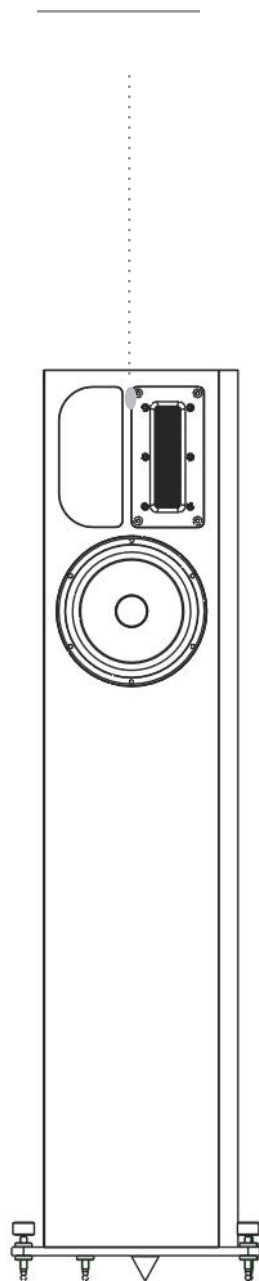
SENSA



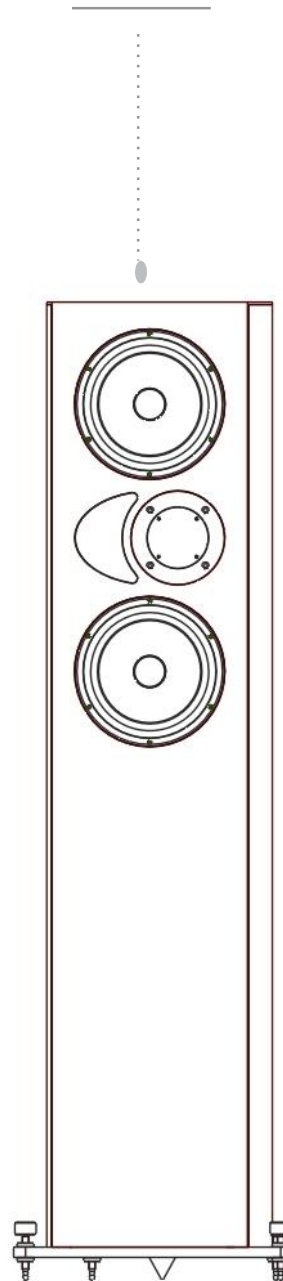
STELA



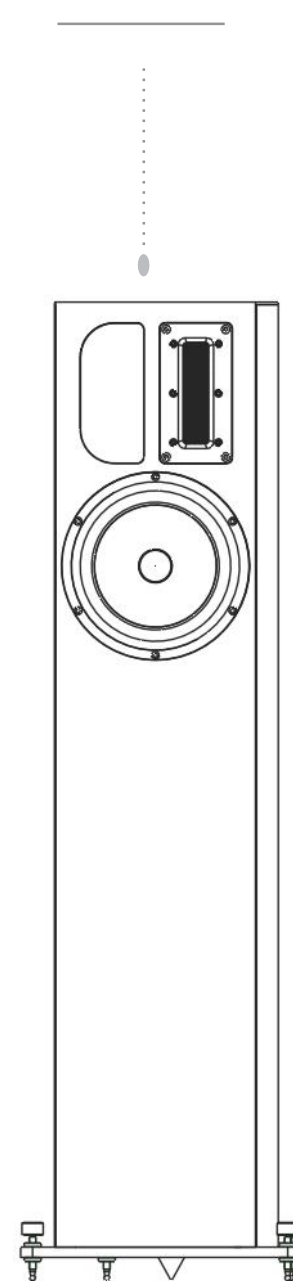
ARMONIA  
EVOLUTION



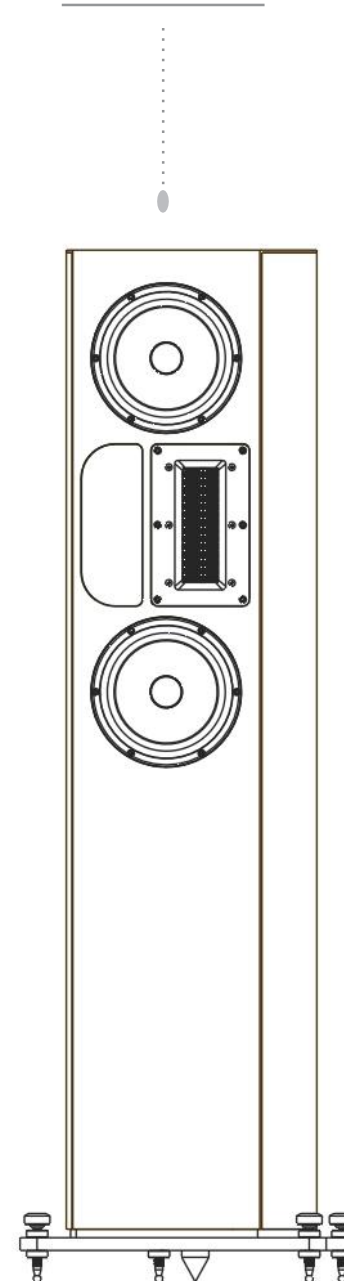
FORTE



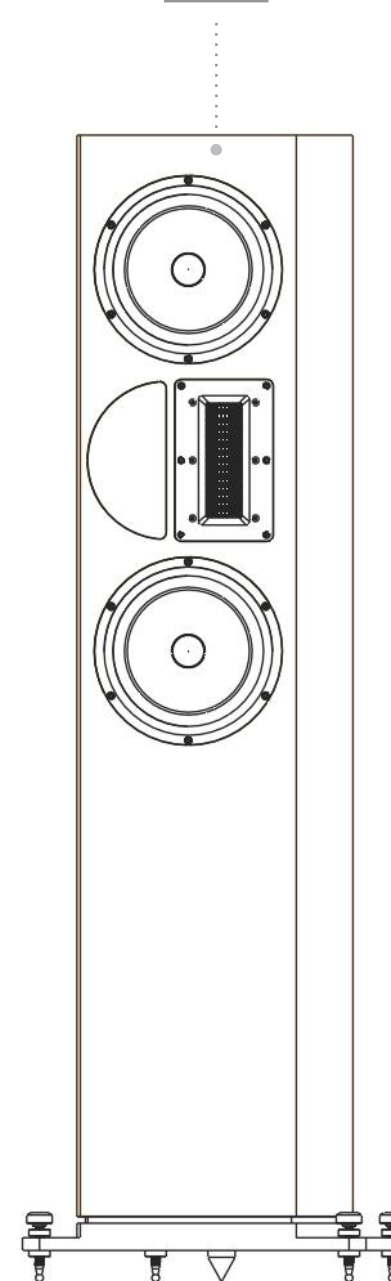
EDENA  
EVOLUTION



ADAMANTE



ENIGMA mkII





# SWING

After many, many requests, we finally took up the challenge of designing an affordable, versatile mini-monitor loudspeaker. The result is the Swing, a compact speaker that despite its diminutive dimensions and chic appearance, embodies all the central precepts of the Apertura philosophy.

Massive 18mm panels, internal bracing, differential damping and precisely balanced reflex loading deliver bass that's clean and quick enough to support a rich, colorful and responsive midrange and clean, seamlessly integrated treble, essential conditions to the enjoyment of any and all types of music.

The Swing might be small, but when it comes to your music, its performance is mighty.

## 2 way, 2 drive units, Stand-mount loudspeaker

FREQUENCY RANGE : 48-30 000Hz/ +-3dB

SENSITIVITY : 87dB/2,83v/1m

IMPEDANCE : 8Ω

LOAD : Bass reflex

DRIVE-UNITS : 16cm Isotactic Matrix – Dome tweeter (ring radiator) 25mm

CROSSOVER FREQUENCY : 3,5kHz, « DRIM structure »

TERMINALS : bananas

DIMENSIONS (WxDxH) :190x310x280mm

WEIGHT : 7,6kg net



### FINISHES

Light Oak satin, American Walnut  
Black high-gloss, White high-gloss,




The Sensa has been specifically developed to bring Apertura standards of performance to smaller rooms and more modest driving systems.

Look inside and you'll find all the trademark Apertura touches, with precisely placed bracing panels and critically calculated damping elements, combined with our proprietary crossover topology built from high-quality components. The result is a compact floorstander that still retains the natural tonal balance, image precision, clarity and absence of clutter so important to us – and so necessary to the enjoyment of recorded music.

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**2 way, 2 drive units,  
floor-standing loudspeaker**

FREQUENCY RANGE : 40-30 000Hz/ +-3dB

SENSITIVITY : 87 dB/2,83v/1m

IMPEDANCE : 8Ω

LOAD : Bass-reflex

DRIVE-UNITS : 16cm Isotactic Matrix - Dome tweeter (ring radiator) 25mm

CROSSOVER FREQUENCY : 3,5kHz – « DRIM structure »

TERMINALS : bananas

DIMENSIONS (WxDxH): 170x240x864mm

With stands: 210x260x921mm

WEIGHT : 14kg net

**FINISHES**

Light Oak satin, American Walnut  
Black high-gloss , White high-gloss,

# STELA

STELA completes the range of three compact Apertura speakers. With a 2-way, 3-driver architecture, this floorstander speaker has the same qualities as Swing and Sensa, but offers a higher level of performance in terms of bass response and dynamic capability. A special version of the woofers allows Stela to maintain a nominal impedance of 8 ohms and places less strain on the associated amplifier.

Stela will reveal all the qualities of the associated equipment, as well as the most beautiful recordings.

The positioning and integration of Stela remains as easy as ever thanks to its contained size.

## 2 way, 3 drive units, floor-standing loudspeaker

FREQUENCY RANGE : 40-30 000Hz/ +-3dB

SENSITIVITY : 88dB/2,83v/1m

IMPEDANCE : 8Ω

LOAD : Bass reflex

DRIVE-UNITS : 2 x 16cm Isotactic Matrix - Dome tweeter (ring radiator) 25mm

CROSSOVER FREQUENCY : 3,4kHz - « DRIM structure »

TERMINALS : bananas

DIMENSIONS (WxDxH): 190 x 290 x 911 mm

With stand and spikes: 230 x 310 x 970 mm

WEIGHT : 19kg net



## FINISHES

Light Oak satin, American Walnut  
Black high-gloss, White high-gloss,

# ARMONIA

## Evolution



### FINISHES

Light Oak satin, American Walnut  
Black high-gloss , White high-gloss,

The Armonia is the first Apertura model available in a new Alternative version, based on a concept called "Evolution".

In the same form factor as the original version, the challenge is, using more performing tweeter and components, to get the uppermost performances.

**2 way, 2 drive units,  
floor-standing loudspeaker**

FREQUENCY RANGE : 37-30 000Hz/ +-3dB

SENSITIVITY : 88 dB/2,83v/1m

IMPEDANCE : 8Ω

LOAD : Bass-reflex

DRIVE-UNITS : 18cm Isotactic Matrix Cone - 8x120mm ribbon tweeter

CROSSOVER FREQUENCY : 2,8kHz « DRIM structure »

TERMINALS : Single wire copper binding posts (bananas or spades)

DIMENSIONS (WxDxH): 205x291x1030mm

With metal stands: 292x291x1069mm

WEIGHT : 22kg net

# FORTÉ

Apertura's Forté loudspeaker finally provides an answer to the frustration of many owners of high quality, but limited power amplifiers, such as tubes or Class A electronics.

It's the end of compromise.

Forté has high sensitivity, extension and control of the low register that has never been seen before.

It benefits also from the well-known Apertura qualities: timbre fidelity, very high linearity and three-dimensional recreation of the soundstage.

All this in a compact, understated and elegant design.

## 2 ways, 3 drive units, floor-standing loudspeaker

FREQUENCY RANGE : 32-28 000Hz/ +-3dB

SENSITIVITY : 93dB/2,83v/1m

IMPEDANCE : 4Ω

LOAD : Bass-reflex

DRIVE-UNITS : 2x18cm Isotactic Matrix - Dome tweeter (ring radiator) 29mm

CROSSOVER FREQUENCY : 3,1 kHz

TERMINALS : single wire binding posts (spades or Bananas)

DIMENSIONS (W x D x H): 230 x 334 x 1110 mm

with stands : 328 x 334 x 1149 mm

WEIGHT : 32kg net



## FINISHES

American Walnut satin  
Black high-gloss , White high-gloss,

EDENA

Evolution



## FINISHES

American Walnut satin  
 Black high-gloss , White cream high-gloss (RAL 9010),  
 Figured Maple High-gloss, Rosewood High-gloss, American Walnut High-gloss.

True to Apertura tradition, the Edena Evolution loudspeaker employs an elegant, asymmetrical architecture, wrapped around multiple, carefully placed internal bracing panels and damping elements to create a cabinet volume that's entirely devoid of standing waves. Equipped with an ultra light, fast and efficient 22 cm bass midrange driver paired with a newly developed, large area ribbon tweeter, Edena Evo cuts straight to the heart of the music, delivering not just its inner structure but its sense and purpose too, an emotional as well as an electro-acoustic transducer.

**2 ways, 2 drive units,  
 floor-standing loudspeaker**

FREQUENCY RANGE : 35-30 000Hz/ +-3dB

SENSITIVITY : 89dB/2,83v/1m

IMPEDANCE : 8Ω

LOAD : Bass-reflex

DRIVE-UNITS : 22cm Isotactic matrix - Ribbon tweeter 8x120mm

CROSSOVER FREQUENCY : 2,8 kHz

TERMINALS : single wire copper binding posts (spades or Bananas)

DIMENSIONS (W x D x H):

With metal stands : 328 x 317 x 1149 mm

WEIGHT : 33,3kg net

# ADAMANTE

A direct result of the experience and knowledge gained during the development of the flagship Enigma loudspeaker, the Adamante is driven by the same ambition and embodies the same design DNA. The beautifully proportioned cabinet profile is inherently stiff, heavily braced and critically damped using lightweight panels derived from aerospace fuselage technology.

It uses the same innovative crossover topology and large area ribbon tweeter as its big sister, an elegantly scaled reflection of our top of the range model. Adamante's unadorned clarity and immediacy, the presence and insight she brings to the musical performance, can evoke the sort of deep, emotive response usually reserved for live music or the concert hall.

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## **2 ways, 3 drive units, Floor-standing loudspeaker**

FREQUENCY RANGE : 32-30 000Hz/ +-3dB

SENSITIVITY : 93dB/2,83v/1m

IMPEDANCE : 4Ω

LOAD : Hybride => Bass-Reflex / Acoustic line

DRIVE-UNITS : 2 x 18cm Isotactic Matrix - 15x145mm ribbon tweeter

CROSSOVER FREQUENCY : 1,8kHz, "DRIM structure" : 2 separate circuit boards for high and low frequencies

TERMINALS : single wire copper binding posts (bananas or spades)

DIMENSIONS (WxDxH): 220 x 353 x 1150 mm

With metal stands : 360 x 391 x 1211 mm

WEIGHT : 52kg net



## FINISHES

American Walnut High-gloss, Figured Maple high-gloss,  
Black high-gloss, White cream high-gloss (RAL 9010), Rosewood High-gloss

# ENIGMA mkII



Embodying a rich, creative heritage that stretches back 35-years, the Enigma MkII represents the ultimate in musical reproduction. Its elegant proportions, heavily braced, asymmetrical cabinet structure, sophisticated damping, carefully selected and matched drivers and unique crossover topology reflect the conceptual clarity behind its design.

Don't be fooled by size or price. Dimensionally precise, rhythmically explicit and dynamically expressive, the Enigma MkII will allow you to travel deeper into the performance, experiencing and unravelling the inner mysteries of the musical universe.

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### **2 ways, 3 drive units, Stand-mount loudspeaker**

FREQUENCY RANGE : 30-30 000Hz/ +-3dB

SENSITIVITY : 95dB/2,83v/1m

IMPEDANCE : 4Ω

LOAD : Bass reflex / ligne acoustique

DRIVE-UNITS : 2 x 22cm Isotactic Matrix - Ribbon tweeter  
15x145mm

CROSSOVER FREQUENCY : 2,1kHz - « DRIM structure »

TERMINALS : single wire binding posts (bananas or spades)

DIMENSIONS (WxDxH): 404 x 444 x 1346 mm

With stand and spikes: 254 x 406 x 1270 mm

WEIGHT : 64kg net

### FINISHES

Black high-gloss , White cream high-gloss (RAL 9010),  
Rosewood High-gloss, American Walnut High-gloss,



# Apertura Audio



**FRENCH HIGH END  
LOUDSPEAKERS**



42 years of passion for music



[www.apertura-audio.com](http://www.apertura-audio.com)