

TEST STANDMOUNT SPEAKERS (ACTIVE)



# JOURNEY FROM PLATFORM 9<sup>®</sup> 3/4

No, Harry Potter & Co. haven't taken up residence at STEREO. But the Dynaudio Confidence 20A strongly reminded us of magic and the magical transition to a new dimension.

Text: Michael Lang

Someone could have thought of this earlier, is what we thought instinctively when we saw the Dynaudio Confidence 20A mounted on its stand. What we meant was not that there were no screws required between the stand and the speaker; but that the entire electronics section has been incorporated into the delicate and stable base, including all the connection and adjustment options.

The roots of Dynaudio's professional monitors from the Core series have been cleverly merged with the needs of customer's home environment to form a coherent unit – as the Danish company has also been a welcome guest among professional audio for many years. Not only is the elegant appearance of the housing as well as the magnetically attached covers absolutely suitable for the living room, but even seemingly small details such as a power cable close to the floor and the connections for analog and digital cables next to that have been taken into consideration.

The professional lineage can best be identified via the connection options, which are exclusively made with three-pin XLR plugs. What is normal in the studio environment is rather unusual in the home hi-fi sector and in many cases requires the use of adapters or suitably assembled special cables.

### Studio genes perfectly camouflaged

With many active loudspeakers, you can already tell from a distance that they were originally intended for use in recording studios of all kinds. Not so with Dynaudio, and for good reason. The Danish company has taken the Confidence 20 passive loudspeakers, which have been available for some time and have a very



Here you can see the specially shaped bass reflex port, which is directed at the firmly screwed stand with the internal electronics at a defined distance.

good reputation, as a basis and have given them tailor-made electronics.

However, customers will also have to dig deep into their pockets for this „activation“. The passive speakers already cost a not inconsiderable 11,000 euros including the stand, while the active version requires an even larger investment of 20,000 euros.

When looking at similarities and differences, our aim was to determine whether and from what perspective this surcharge could be considered justified. From the outside, differences are only visible to a well-trained eye, after all. Only the tweeter, a few screws, the Y logo and the feet of the stand are identical to the passive version.

Given the price tag, it goes without saying that no compromises were made concerning the drivers of the Confidence series and that only the highest quality transducers from the Dynaudio portfolio are used. In the high frequency range, the famous Esotar tweeter is used in its current best version 3. From the outside, it looks rather inconspicuous with its 28

millimeter fabric dome tweeter, but on the technological side it is high-tech of the purest kind. One remarkable feature is the inner dome, called Hexis, which is designed to reduce resonance.

### Tricks with the Drivers

The voice coil is wound from light aluminum and is responsible for excellent transient behavior. The generously proportioned neodymium magnet system promises improved efficiency and excellent dynamic capabilities, as claimed by the developers. Another highlight is the generously dimensioned rear chamber made of damped metal, which serves to further reduce remaining resonances.

The mid and bass ranges are reproduced by an 18-centimeter NeoTec transducer. The bass range is also supported by a carefully screwed bass reflex port on the underside of the speaker. This part indeed has a lot to offer. It is exponentially shaped and thus almost completely avoids flow noise. This not only benefits the bass reproduction through more pressure and



This little space capsule is called Hexis and is an important part of the Esotar 3 tweeter.



Instead of spikes, damped feet can be mounted for placement on delicate floors.



Solid screw-on spikes, a precise spirit level, and gloves are included.



## TEST COMPACT SPEAKERS (ACTIVE)

precision, but the frequency ranges above it also increase in clarity; vocal articulation and audibility of complex sound bodies are increased.

The NeoTec driver also uses neodymium as a magnet material, which is ventilated here to optimize the thermal conditions, ensure a higher load capacity and work without distortion even at high sound pressure levels. As with the Esotar, the voice coil is wound from aluminum, but here it sits on a fiberglass carrier. The cone material used is Dynaudio's legendary magnesium-silicate-polymer mixture, or MSP for short, which has been continuously refined over decades. The workmanship of the cabinets can be regarded as the benchmark for contemporary loudspeaker construction. This extends right down to the massive baffle made of the highly damping composite material Compex, which is very light and extremely strong. According to the Danish brand, Compex is also particularly stable and the-



The bass driver with MSP membrane does exceptional work in the Confidence 20A.



The Esotar tweeter also boasts a wealth of clever technical details.

refores ensures an exceptionally high degree of freedom from resonance.

### Stand with Double Function

Let's take a curious look at the stand. When connected to the power supply, a small Y symbol lights up on the front, indicating that this is more than just an ordinary stand.

And indeed, the complete electronics are integrated in this base, including two Pascal Class D power amplifiers, D/A converter and DSP, a "digital signal processor", which does all the computing work for the electronic replication of the crossover and a few other jobs on the side. The module for all connections and adjustment options is also housed inside. This approach has another advantage: the aluminum stand also serves as a cooling surface for the electronics and increases the weight and thus the stability.

The power amplifiers deliver 150 watts for the tweeter and a whopping 500 watts for the midrange/woofer. However, this is limited to 400 watts so as not to exceed the maximum possible excursion of the woofer.

After intensive listening sessions and lengthy fine-tuning, Dynaudio decided in favor of the so-called IIR filters and against the FIR filters. The IIR filter performs the task of a classic crossover. It cuts frequencies for the individual drivers upwards and downwards. IIR stands for "infinite impulse response", while FIR stands for "finite impulse response". These are basically mathematical algorithms, whereby the IIR version used here can, in theory,

allow its response to an input impulse to resonate indefinitely, while an FIR version brings an impulse back to zero after a certain period of time. Ultimately, the result always depends on the requirements in a particular environment. Dynaudio emphasizes, however, that the IIR filter is very similar to a high-quality analog filter in its oscillation behavior and was therefore given preference. The crossover frequency between the drivers was set at 2,500 Hertz.

### DSP with Clever Crossover Circuitry

As the DSP also performs the classic crossover functions, something very special has been devised for the 20A: instead of using a filter with fixed characteristics at a specific point, as is usually the case, the filters here have different slopes depending on the frequency, which could perhaps also be described as "sliding filters". We haven't come across these in this shape before. But they are probably responsible to a not insignificant extent for the impressive sound



Here is the alternatively available white version with controls and connections.



Speakers in the studio segment usually look as plain as the Genelec 8361A do.

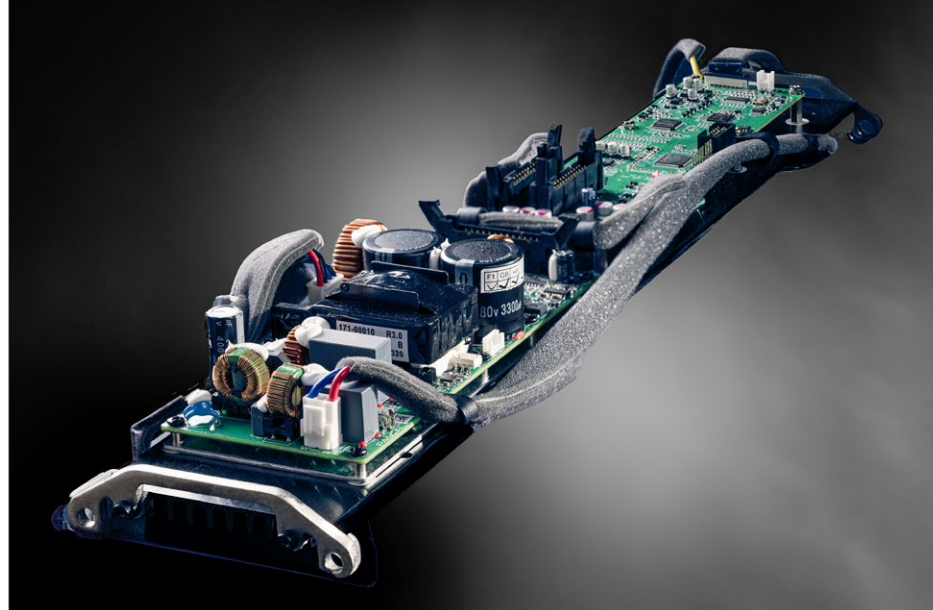
experience that will be described shortly. They ensure a clean phase response and are at the same time also designed to optimize the dispersion characteristics.

The move to offer a compact but high-priced active loudspeaker does not follow a current market trend, but rather precedes it somewhat. This is because sales of “activists” in this price range are still relatively modest, albeit slowly but steadily increasing. By the way, a conscious decision was made not to include streaming functions, Bluetooth or an extensive calibration program that can be controlled via an app.

Such features are considered inappropriate because they risk quickly becoming obsolete. In addition, according to the Danish strategists, customers in this price range usually prefer individual devices that are specialized for their particular task and not an all-in-one solution. This customer group may already find it difficult to no longer be able to choose their own (power) amplifier with the purchase of the Confidence 20A ...

### Reduced Sound Interference

In particular, we noticed that although there are options for influencing the sound, these are rather modest for an active design. Only an adjustment to the placement conditions (free, close to the wall and in the corner) is possible, and the treble range can be adjusted in three stages (dark, neutral, bright). Besides that, you can only switch a sampling rate converter on or off. This technology changes the in-



The complete amplifier electronics with the two Pascal Class-D amplifiers, delivering 150 and 500 watts, are space-efficiently mounted on this board hidden in the stand.

coming signal, for example from 44.1 to 48 kHz, and in most cases causes undesirable changes to the sound. Normally, this sampling rate conversion should be switched off to avoid sound interference. However, because there are cases in which a supplied digital signal is not 100% compatible with the DAC of the Dynaudio – which can manifest itself in small dropouts – the sampling rate converter has nevertheless been considered the lesser of two evils and has been implemented. For analog inputs, the signal is converted directly to 192 kHz, regardless of the setting on the rear panel.

If you want more influence on the sound, you will need to consider purchasing a separate processor or a preamplifier with room correction functionality. It is also important to know that any connected

source must have its own volume control, as the Confidence does not have this feature. There is also no remote control. However, when you listen to this speaker, this may quickly seem unimportant. Because as soon as this compact speaker emits the first sounds into the room, any thought of a lack of comfort and features disappears once and for all into the dustbin of fondly cherished but outdated prejudices.

### Nimble and Spirited

The Confidence 20A set off so energetically in our 40 square meter listening room that we could hardly believe our ears at first. While the impulse response had already given us an initial indication that this speaker would waste no time in converting electrical signals into sound, the

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The connection panel offers analog as well as digital three-pin XLR connectors.



All controllers for adjustment to the surroundings are on the back of the stand.



The high-quality cover adheres magnetically, as is usual in this price range.

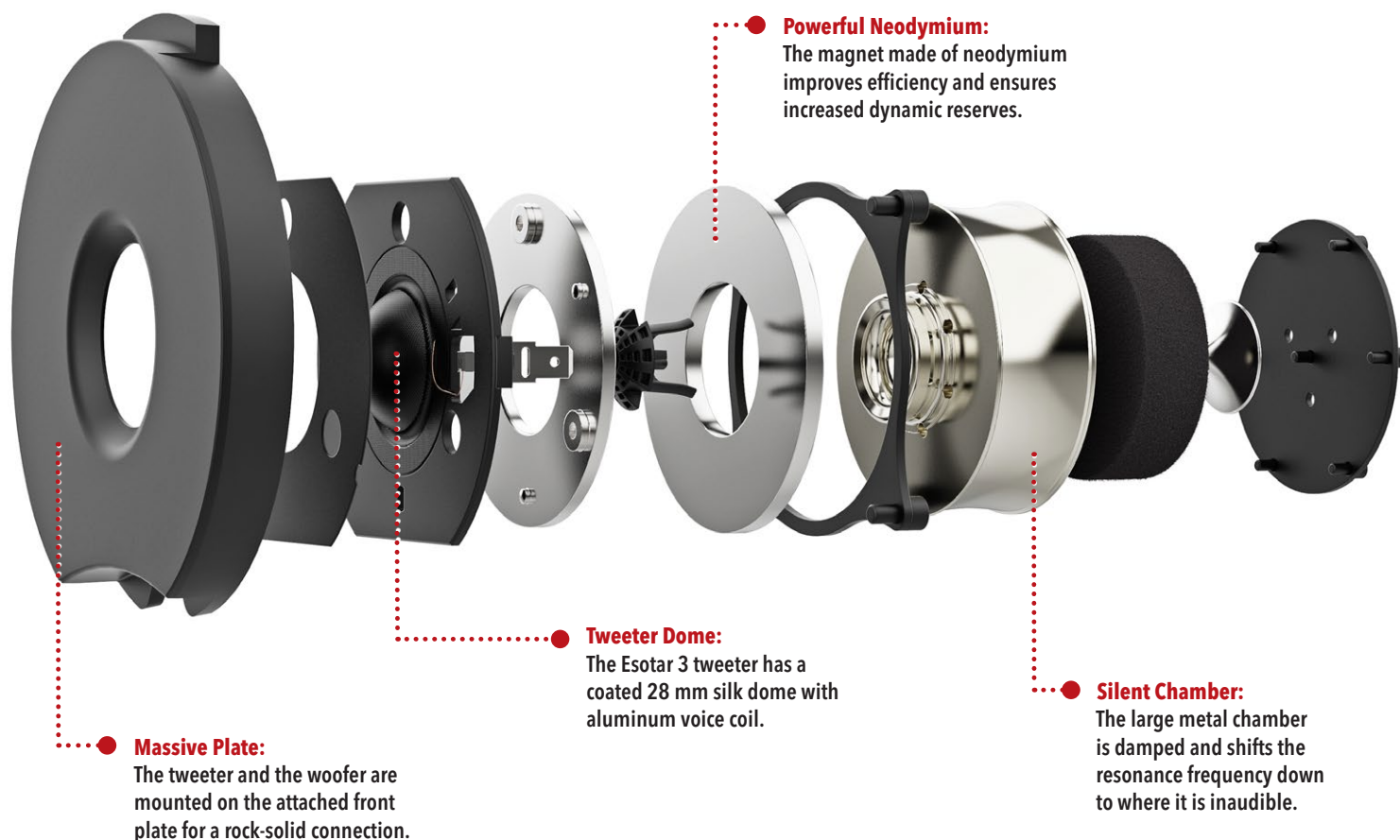
sonic impression was even more impressive. With an acceleration that would make even a modern incarnation of the venerable Hogwarts Express seem like a medieval train, this speaker got down to business with the first notes of Dave Brubeck's 1963 live recording of "Castilian Drums".

It didn't miss any details in the attack or decay, had no problems kee-

ping an overview even in the wildest drum thunderstorm of drums as well as reproducing the sheer abundance of detail confidently and completely effortlessly. This also applies without compromise to the low-frequency energy with which various drums stormed the room. It was also impressive how aspects of liveliness, the vibrant, im-

mediate responses were realized by the Confidence 20A.

According to a fairly unanimous opinion, there has never really been anything to criticize about a Dynaudio in terms of tonality anyway. But the 20A wrapped a plasticity around the artists, from Ella Fitzgerald to opera choirs to Paul Simon, which was new for us in this urgency and authenticity.



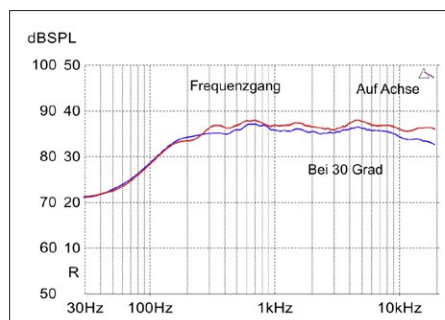


## Spatial and precisely localized

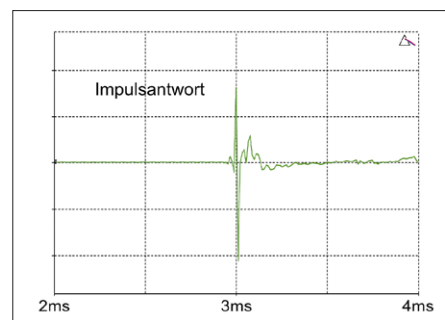
This speaker also provided a special experience when it came to placing entire orchestras along with a choir into the room, as with Verdi's „Requiem“. In the recording under Robert Shaw with the Atlanta Symphony Orchestra, the Dynaudio played as if unleashed. A huge room opened up, which never lacked precision in precise imaging at any point. From the finest micro-dynamic gradations to levels that invited colleagues to neglect their work for a while to listen in, the small active speaker provided unrestricted joy.

Hard rock music from Led Zeppelin to Bryan Adams and Black Sabbath, none of which are known as masterpieces of sound engineering, had that raw charm, that impetuosity that is inherent in good rock music. We could listen to the Confidence 20A for hours without getting tired, annoyed or feeling any strain. And certainly without feeling bored.

The Dynaudio Confidence 20A undoubtedly delivered a grandiose performance that would have done credit to wizards from Harry Potter to David Copperfield. If you can do without a little comfort and equipment, your trusted hi-fi retailer has an exceptional loudspeaker ready for you to listen to! ■



The frequency response is very balanced above about 200 Hertz, also off-axis.



The impulse response deserves the highest respect – it is simply perfect.

## DYNAUDIO CONFIDENCE 20A

<b>Product type / Price range</b>		Standmount Speakers (Active) / above 16,000 Euros
<b>Website</b>		www.dynaudio.de
<b>Price in Euros</b>		20,000
<b>Dimensions (W x H x D) in cm</b>		36.8 x 111.9 x 45.7
<b>Weight in kg</b>		28.5
<b>German Distributor / Phone</b>		Dynaudio / +49 4108 41800
<b>Principle</b>		dynamic, 2-way, ported, active
<b>Communication between speakers</b>		wired
<b>Info about recommended placement</b>		from 20 cm distance to rear and side walls, slightly angled
<b>SOUND</b>	<b>45%</b>	<b>very good 1.2</b>
<b>Sound quality</b>		spatial imaging almost perfect, tonally absolutely neutral, emotionally captivating and with very good bass and dynamic quality
<b>MEASUREMENTS</b>	<b>15%</b>	<b>good 1.6</b>
<b>Frequency response</b>		good
<b>Impulse response</b>		very good
<b>Distortions at 63 / 3k / 10k Hz (in percent)</b>		good (0.63 / 0.23 / 0.1)
<b>Power consumption idling (in watts)</b>		very good (<0.5)
<b>EQUIPMENT</b>	<b>20%</b>	<b>satisfactory 3.3</b>
<b>Sound correction possible</b>		yes
<b>Cabinet finishes</b>		high gloss white / black
<b>Scope of delivery</b>		grille, spikes, washers, rubber feet
<b>Haptics &amp; Workmanship</b>		very good
<b>Connections</b>		only AES/EBU in/out & XLR in
<b>Bluetooth</b>		no
<b>Expandability</b>		no
<b>Hard mains switch</b>		yes
<b>OPERATION</b>	<b>20%</b>	<b>satisfactory 3.3</b>
<b>Placement</b>		very good
<b>Initial setup</b>		very good
<b>Quality of the remote control</b>		not available
<b>Operation on the device / Display</b>		still good
<b>Quality of the manual</b>		satisfactory
<b>Warranty in years</b>		electronics: 3 years / drivers: 8 years
<b>TEST RESULT</b>		<b>good 2.1</b>