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OTHERDRUCK

HÖRTEST: DANCLAR CAUDI OE3



FRITZ FEY, PHOTO: DCA, FRITZ FEY

# CLARESACHE

DAN CLARK AUDIO E3 REFERENCE COOPERATIONS

My growing preference for headphones can no longer be concealed, and in the course of a few listening tests I also realized what an important role the headphone amplifier plays in this scenario, and that here too, although not as extreme as with the headphones themselves, audible differences can easily be made out. But we know this in a similar way from the power amplifier selection for passive monitor systems. Since I have been paying more attention to the subject of headphones I've been listening to headphones for about ten years now, I've experienced massive leaps in quality from one model generation to the next. It's almost impossible to write about the 'impressive precision' of a headphone when each new successor casually and confidently outclasses its predecessor. Before I worked with a DMC mastering console from SPL, the closed-back design of the headphones I used was very important to me, because I couldn't comfortably switch between the loudspeaker system and the headphones. The relevance of this issue resulted from the 27 milliseconds of latency caused by my Trinnov Optimizer. At the moderate monitoring volumes I use, the attenuation of closed headphones was sufficiently high to allow loudspeakers with latency and headphones without latency to play simultaneously 'without interference' when it was only a matter of making a short decision using headphones.

The closed-back headphone model I still prefer is an AEON 2 Noire from Dan Clark Audio, which I also really like regardless of the scenario I'm listening to because of its grip and the fact that the bass response is just right for me. That's why I was a little nervous when the German DCA distributor audioNEXT

the E3, which is not a successor to the Noire, but is trying to attract the attention of potential users with the 5th generation of the DCA magneto-static transducer, among other things. Dan Clark Audio is based in San Diego, California, and now offers five closed-back headphones with a magneto-static drive, three from the AEON series (RT, 2 and 2 Noire ranging in price from 500 to just under 1,000 euros),

the top model Stealth at a price of well over 4,000 euros and the new E3, which is somewhere in between on the scale - I won't reveal exactly where until the end (hello! Not so curious!).

## History

In April 2012, Dan Clark founded his first company called MrSpeakers, which began by tuning existing headphone models. The name was derived from Dan Clark's work as a development consultant in the field of loudspeaker design for various manufacturers with high-end aspirations. The history of the headphone specialist, which changed its name to Dan Clark Audio in 2019 due to the misleading name.

The fact that Dan Clark, as a development engineer, dedicated himself to a very special problem, namely to make headphones in a closed design sound more 'open' in order not to buy the advantages of noise isolation to the outside with a resonant housing sound. to have to. The result of these efforts was the world's first 3D-printed headphones, which went down in the company's history as the 'Alpha Dog'. The commercial success of this headphone was invested in 2015 in the first headphone model developed entirely in-house, 'Ether', with planar membrane technology and an open design, which basically secured the long-term existence of this manufacturer and its continued success. In the meantime



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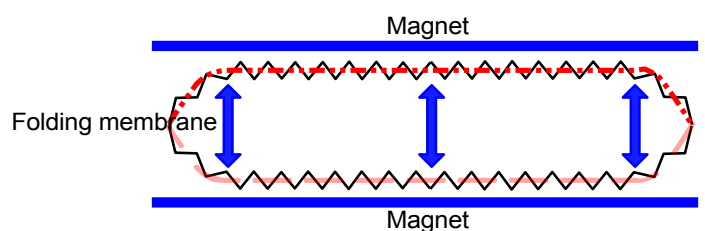
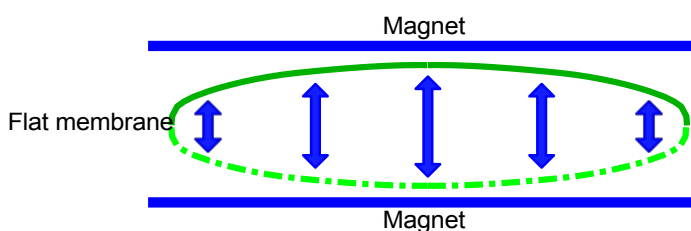
DCA offers both closed and open-back headphones, but a particular strength of this company for me remains the ingenious closed-back design, which not only sounds open, but can shine with a particularly contoured reproduction across the entire spectrum.

## E3 - an overview

The manufacturer itself describes its new E3 as a 'mid-range model', but this probably refers more to the price, as technologically the E3 combines all the design ideas that can also be found in the flagship models Expanse and Stealth. As already mentioned, the 5th generation E3 uses the company's own V-Planar driver technology and employs a new acoustic element called 'Acoustic Metamaterial Tuning'.

System' (AMTS). On the outside, the unusual Gorilla Glass cover of the ear cups is naturally striking for headphones. 'Gorilla Glass 3' represents a thin layer of aluminum. li aluminosilicate of high breaking strength. The mesh-like pattern visible under the glass is reminiscent of the housing structure of an open headphone and is intended to indicate what was defined as the sound objective for these closed headphones. Mechanically, the E3 offers a self-adjusting leather headband, held by a double metal bracket, which in turn is attached to the patented folding mechanism, with the help of which the headphones, like the AEON models, can be transported compactly 'folded up' in a small hard case. Measured by the unfolded size, one could speak of a kind of 'space miracle'. The ear cups are shaped like a human ear.

so that there can be no switching between the left and right channels. The connection cable is equipped with four-pin, lockable plugs on the headphone connection side, the right channel is connected to the right-hand headphone. marked with a red ring on the cable side. The headband and the soft, generously dimensioned ear pads ensure high wearing comfort, despite a weight of 455 grams. The information on the technical data is very sparse, we read something about 27 ohms and discover the information on the frequency response, original quote: 'Yes, it does'. Interesting is the use of a 'two-channel' bass reflex port in the form of two small holes/openings in the glass cover, through which the precise low bass and fundamental range is formed and which ensure an extremely relaxed, tidy reproduction of 'high bass' and 'low mids'. As far as the lowest registers are concerned, you simply have to close the two lower openings on the left and right and you will find that the entire lower register disappears. A very important element for the open sound of the E3 is the AMTS element (see illustration above left), which is otherwise only found in the top-of-the-line models Expanse (open), Stealth (closed) and Corina (electrostat open construction). Due to the ear cup dimensions, all closed-back headphones are affected by the problem of standing waves in the upper frequency range, which, without countermeasures, can lead to an annoying, sharp sound that can quickly fade into the background. signs of fatigue draws. This is why the AMTS element





between the sound transducer and the ear, which integrates sound guidance, diffusion effect and resonators to break up standing waves. The spectral profile of the upper frequency range can be 'adjusted' as required thanks to the selected detailed geometry of the element, which is individually tuned for each headphone model. A further important key factor in the sound quality of the E3 is the V-planar technology. As can be seen in the schematic diagram, a finely structured folded diaphragm achieves increased elasticity and flexibility in the edge/bearing area.

This results in a large-area flat movement of the membrane. In comparison, a conventional membrane will perform a curved movement and thus exhibit non-linear behavior, with the maximum movement distance only being achieved in the middle of the membrane. V-Planar enables a significantly greater movement distance. This means that more air can be moved with a smaller diaphragm. This means better impulse fidelity at low frequencies, higher dynamic range, lower



Distortions and enhanced detail imaging precision.

## Listen

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If you - like me, thankfully - are allowed to operate at a high level in daily studio practice, for example when it comes to headphone playback, it is actually very difficult to imagine big leaps in quality. But since I keep experiencing them, I was curious to see what the innovation-driven E3 had to offer in this respect. To the ver-

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closed guild, which has been my unbeaten companion for several years now. However, there haven't been that many closed-back headphones in recent times. But even compared to the 'open-back guild', the Noire has always made a confident, competitive impression. Until the day I put on the E3 for the first time. Don't get me wrong, the Noire undoubtedly has its class, but my previous favorite had to throw up its hands against the - albeit much more expensive - 'up-and-coming competitor'. This has above all with the further noticeable increase in This has a lot to do with the E3's excellent transparency, openness and spatiality, as well as the almost frightening wealth of detail it is capable of delivering. The bass range is very good, but rather neutrally illuminated, with excellent impulse fidelity and very good tonal delineation - but it still comes across as a bit of a distraction in view of the disarming clarity of the E3.

when you realize that the bass range is fully represented right down to the lower registers and is only slightly overshadowed by the 'attractiveness' of the mid-range. What I particularly like about these headphones is the silky, extremely relaxed reproduction of the upper mids and highs. You can hear deep into all the details without any exposed emphasis on this special sector. The transparency is simply phenomenal, which is not to say that everything sounds great with the E3. On the contrary - especially the musical-technical works of art, which bear witness to little talent and craftsmanship, are unmasked mercilessly with these headphones, as the range between exceptionally good and exceptionally bad has become a whole lot wider. The gives the user of the E3 particular confidence that they are hearing the right thing and can make quick decisions. If you have not yet tried it

If you have ever heard Jacob Collier's 'Bridge Over Troubled Water', then you should literally 'experience' it. The man is a musical genius and the E3 brings precisely this talent of incredible musical production to full fruition, with a precision and localization that is rarely heard in this form.

## Conclusion

To satisfy our curiosity about the price of this precision tool right at the beginning of this section: The E3 is listed by Essen-based German distributor audioNEXT at €2,459 gross, which is almost €1,500 more than the AEON 2 Noire used here for comparison. The E3 justifies the The difference in price is undoubtedly compensated for by more directional and distance precision, a significantly increased transparency, transient and detail representation and an excellently tuned mid and treble range that is in no way intrusive or overdrawn - clear, open, transparent, fast and precise down to the last corners of complex spatial structures. I'm not retiring my Noire after this experience, but the next generation of headphones from San Diego raises the bar for the high-end headphone segment, even in comparison with The sound quality is superior to that of representatives of the same or even a higher price segment, regardless of the design. You can hardly pay a closed-back headphone a greater compliment. And again, I ask myself what comes next... I'll let you know when the 'next' thing in the form of a new headphone design is waiting for me to put it to the test...