Audio Physic: The Avantera Loudspeaker
Loudspeaker: The Audio Physic Avantera

The precision used by Audio Physic in the production of its reference line of loudspeakers is on a par with the specific manner in which the Swiss build their clocks and watches. Audio Physic’s Chief Designer Manfred Diestertich introduced the Avantera, which is the successor to the successful Avanti, as an intermediate loudspeaker between the company’s star- ter model, the Virgo, and its top dog, the Cardeas.

Debating the workmanship and high-quality finish of Audio Physic products is about as useful as selling coal to Newcastle. The cabinet is, as always, absolutely perfect and running your hand over its surface is an experience that will almost have you jumping for joy. On top of this, the loudspeaker design is also extremely appealing, with a relatively slim front that flows through to the rounded rear of the cabinet. The loudspeaker is given more stability by two aluminium crossbars that are mounted under the base of the cabinet at the front and back and that have circular ends for fitting adjustable spikes. Despite its relatively tall height of 1.15 metres, the overall appearance of the Avantera is elegant and extremely sophisticated. Creating a comfortable and homely atmosphere is currently becoming increasingly popular and the Avantera meets these requirements down to a tee. It has its own character as an artistic object and, in my opinion, appeals to a wide audience.

Nevertheless, it is not only the Avantera’s appearance that makes it such an impressive model. It also has a lot to offer from a technical point of view. All of the drivers used in the Avantera were developed by Manfred Diestertich himself, who has given the lightweight and extremely stable ‘ring-free’ metal diaphragms perfect sound reproduction properties. First of all, the HHCT II cone tweeter, which significantly differs from a dome in terms of its construction, deserves a special mention. This tweeter sets new benchmarks, in particular with regard to its fine resolution, which is perfectly in line with the company’s motto of: “no loss of fine detail”.

It therefore comes as no surprise that the two midrange drivers (HHCM), which, like the HHCT II, sit in their own separate chamber, are also cone constructions. Just like the tweeter, these drivers contain a decoupling double basket construction made of plastic (on the inside) and metal (on the outside). The two midrange drivers can, however, be distinguished from each other due to the fact that the lower driver contains a double-wound voice coil that results in a slightly different filter effect. The midrange drivers are also fitted with fixed metal phase plugs that aim to optimise heat dissipation and avoid compression effects.

Audio Physic, which is based in the German town of Brilon, uses the same technology in the Avantera’s woofers. Using identical drivers for the same operating range has the advantage that it increases the surface area of the diaphragm and limits the amount of excursion, meaning that all four drivers are substantially more accurate, even when they are put to the ultimate test.

by Robert Schmitz-Niehaus

The Allurement of Special Features
Manfred Diestertich has been intensively examining the topic of resonance damping for many years and is without a doubt a recognised expert in this field both in Germany and much further afield. It is therefore to be expected that he pays a lot of attention to the avoidance of resonance in the case of every single construction detail in order to provide even better sound reproduction. As a result of these efforts, all of the drivers are mounted using neoprene plugs and the tweeter is also specially decoupled on its own. The VCT (Vibration Control Terminal) technology that is used between the rear connection plate that contains the connectors and the loudspeaker cabinet provides this effect and additional vibration dampers carry out the same task in the case of the WBT jacks.

The Listening Experience

Over the past few months, my exploration of the Avantera has been beyond intensive. This has also involved a lot of work on both the loudspeaker and myself because I have seldom wanted to keep a loudspeaker in this price range in my listening room for much longer before. I must also admit that during my last meeting with my colleague MK, he introduced me to a number of loudspeakers in the same league as the Avantera. These models did, indeed, all reach a high-quality level of sound reproduction, but I was both astonished and surprised by the fact that they had extremely different sound tuning features. They have now reached a level of quality that was reserved for a different price range of loudspeakers a decade ago.

After coming to this conclusion I did, of course, ask myself how all this was possible. Deep inside myself, I felt a strong impulse to push the Avantera to its very limits and make the most of all of its quality features, right down to the last detail. In retrospect, this is actually the best possible praise that I could ever give to a loudspeaker. It is

Giora Feidman

The Dance of Joy, Pianissimo 0908/CD

The way Giora Feidman plays the clarinet is simply unmistakable and full of inconceivable virtuosity. This album is simply stunning, with every one of its songs bursting with joy and sweeping the listener off their feet. The accompanying musicians also make themselves and their talent well heard.

Wolfgang Amadeus Mozart - Violin Concerto
4 in D major, KV 218, and 5 in A major KV 219
DG/Audiophile LP (180 g)

Top-quality sound and pressing.

These concertos in D major, KV 218, and in A major, KV 219, were composed in the year 1775, when Mozart was just nineteen years old and working as the Concert Master of the Prince-Archbishop’s Court Orchestra in his home city of Salzburg, Austria. The melodic style of these compositions is formed by their elegance and song-like properties, while conventional tones are unmistakable. Speakers Corner has reissued this LP record and made it a top-quality production in terms of its sound.
otherwise the case that a loudspeaker is simply so-so (meaning that I package it back up and send it back to the manufacturer) or that it is, to all intents and purposes, a good loudspeaker that I would recommend, or that it is much more than so-so. Then, I have to take a deep breath as I yet again learn something new, a fact that it just as important as it is beneficial. After all, standing still is just like taking a step backwards while everything around you constantly continues to develop and progress. The Avantera is just like that, it is definitely moving forward. Between you and me, I even got the feeling that it occasionally zoomed right past me in the overtaking lane during our sound-based liaison.

At the beginning of my time with the Avantera I was faced with a full-blown sports car displaying rudimentary features of a top limousine - these comparisons to the world of automotive construction are the ideal way to describe it. I put the pedal to the metal by turning up the volume and I suddenly realised how engine power was being converted into sound reproduction. I then realised that I consequently also needed to consider my tyres and rims. How could I correctly position my loudspeakers? Which speaker distances in my room were the best? One thing was for sure: the most secure grip on the pavement had to be delivered by the stable bass foundation, without which my sound reproduction would have been a total write-off.

I then also had to deal with the problem of finding the perfect partner for my Avantera. Fortunately, however, there are many bright lights on the horizon because these loudspeakers get along well with a relatively large number of amplifiers. A certain power reserve is no disadvantage when the sensitivity is 89 dB. In this particular case, however, I would like to expressly thank Ingo Hansen from Phonosophie, who came to my aid by lending me

The Avantera is a mature floor-standing loudspeaker with side-firing woofers, meaning that it has a relatively slim front.
Mstislav Rostropovich - Violoncello
Sviatoslav Richter - Piano

Philips/Audiophile Doppel-LP (180 g)
Top-quality sound and pressing.
The Russian classical artists Sviatoslav Richter and Mstislav Rostropovich were already known as absolute legends in their lifetime. They were extremely popular and in demand both as soloists and as an ensemble and played technically perfect pieces that nevertheless displayed a lot of emotion. This approach was particularly beneficial in the case of Beethoven’s compositions, making this double LP record a top recommendation in terms of its musicality and sound.

A loudspeaker like the Avantera therefore needs to be handled with respect. In my test room, the two loudspeakers were separated by a distance of just over 2.50 metres and were relatively strongly angled towards the listening position. From this position (almost three metres away), I could still see around half of the inner side of the loudspeakers. The central point of the imaginary extended axis was therefore located significantly behind my listening position. Angling the loudspeakers more towards the listening position would, in my opinion, have too large an effect on the horizontal dimension of the sound image. Depending on the room and the associated electronic equipment, it may even potentially lead to slightly harsh-sounding peaks in the high frequency range in the sound reproduction. The very fact that such subtleties can become noticeable shows that the Avantera is an absolutely high-precision instrument. In my listening room, I had the advantage that I did not have to make any compromises and was instead able to position my loudspeakers exactly how I wanted to, to a large extent. The loudspeakers’ distance from the back wall is extremely variable and my individual experiments showed that the closer they are to the wall, the lower the resolution. At a distance of 50cm from the back wall, the Avantera is able to breathe and at 90cm or more, it really takes a deep breath. All the time, the loudspeakers were never more than a metre away from the side walls.

The sound tuning of the loudspeakers aims to give clear contouring priority over superimposed richness, which is very different to the sound tuning of older models during the Joachim Gerhard era at Audio Physic. I considered the analytics involved in the previous design to be too cool, but Gerhard’s successor, Manfred Diestertich, has managed to keep the fine resolution on a par with the former sound tuning whilst also making the sound much more mellow. In my listening room, which is very large and able to process high bass volumes, the Avantera was able to give an honest reproduction of male voices and produce impressive and convincing sound in the case of both small and large orchestras.
Trying to evaluate the success of a loudspeaker’s transition from one driver to another and to assess its crossover by listening to its sound reproduction is, of course, not everyone’s cup of tea. Based on my own quite considerable experience with three-way loudspeakers, however, I consider the Avanterra to have hit the nail on the head in this regard. The transition zones in the frequency range are, acoustically speaking, unobtrusive. and if you listen to vinyl records that are particularly demanding where this is concerned, you will find it nigh on impossible not to sing the Avanterra’s praise. It is as if the different voices of a choir unfold in your very room and you are experiencing the air and the acoustic constellations live and in person. The loudspeakers give male voices an even balance between chest voices and throat voices and also enable you to hear exactly where the individual singers are ‘standing’. During my test, I listened to violin concertos by Mozart (“Violin Concerto 4 in D major and 5 in A major; DG) and was extremely enthusiastic about the well-articulated and balanced reproduction. In addition, the high resolution performance is in tune with an excellent spatial image. These violin concertos date back to Mozart’s years in Salzburg and form part of the most gallant period of his musical life and career. They are a prime example of Mozart at his most cheerful, in the period in which critics also refer to him as the “Raphael of Music”. During these years, Mozart highlighted the value of pure and complete musical beauty.

Alongside normal spikes, Audio Physic also offers special SSC feet, which are definitely well worth purchasing for the best possible sound. Covers for these feet are also provided in order to maintain the loudspeaker’s attractive appearance.
The Avantera is also able to clearly process the fine timbres of a harpsichord without toning them down. A particular critical instrument in this regard is the cello, for example in the “Beethoven Sonatas for Piano and Cello” by Rostropovich/Richter, Philips 2920. This album is a collection of all of Beethoven’s sonatas for piano and cello played by two of the most significant artists of the 20th century. The two Op 5 (1796) sonatas in F major and G minor were created for a performance at the court of King Frederick William II of Prussia, to whom the pieces were dedicated, at which Beethoven, who was a virtuosic pianist himself, played the piano part. In the case of the cello, loudspeakers can often quickly remove or weaken its expressiveness, causing the typical elements of the instrument to fade into the background. If you are aware of the special qualities of the cello, simply sit back, relax and listen to the Beethoven sonata as played by the Avantera and you will honestly have to admit that every single detail can be clearly heard. The loudspeaker certainly does not make the cello sound like it is just a wooden box with strings. Its high differentiation can also be tested using Giora Feidman’s clarinet (“The Dance of Joy”; Pianissimo PM 0908) and Van Morrison’s voice. In my opinion, this can be accredited to the cone tweeter, which does a really good job in terms of its speed and precision. The mids and highs simply flow into each other smoothly and unspectacularly.

The Avantera also shows its confidence when it comes to the woofers, producing homogenous, tight and dynamic bass sound. When listening to music at high volumes, it really feels like the drums are right up in your face and the punch of the bass cannot only be heard, but also felt by the entire body. Even when at full blast, these loudspeakers don’t make any trouble.

**Conclusion:** At the end of this description, I can only report on my own evaluation, which is extremely subjective and highly influenced by my personal preferences. I like to hear spatial images, definitions, dynamics and tonal qualities. Sometimes I also like to turn my music right up loud. The Avantera is able to deal with all of these requirements and challenges just like that and stays completely relaxed whilst doing so: just like a true champion. 

**The Product:**
Avantera: 3-way loudspeaker
Recommended amplifier power: 40-250 W, Impedance: 4 Ohm
Frequency response: 28 Hz - 40 kHz
Crossover frequencies: 150 Hz and 2.8 kHz
Sensitivity: 89 dB
Dimensions (HxWxD): 1150 x 240 x 420 mm
Base (WxD): 370 x 500 mm
Weight: 40 kg
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