ATC SIA2-100

December 29, 2019 Category: Amplifiers and receivers Tomasz Karasiński



The British company Acoustic Transducer Company, today known as ATC Loudspeaker Technology, was founded in 1974 by Billy Woodman. Its first and most important goal was the production of custom electro-acoustic transducers that could be used in both professional and home speaker systems. Manufaktura quickly gained fame thanks to the 12-inch PA75-314 transducer designed for stage sound systems, where the ability to transmit high power with the lowest possible level of distortion is required. British engineers coped with it brilliantly, thanks to which they quickly became famous among professionals. In 1976, ATC introduced a completely different transducer whose unusual design revolutionized the studio monitor market. Of course, we are talking about the 75-mm midrange dome SM 75-150s, considered by many specialists to be the best driver of this type in the world. The next decade was a period for the company in which its engineers were able not only to design excellent transducers and sound systems, but also to establish close cooperation with professionals working in recording and radio studios, concert halls, as well as those most recognizable - those standing behind the microphone and harassing working on their instruments. When artists such as Pink Floyd and Supertramp encountered ATC loudspeakers, it was known that the company had broken a certain barrier and entered the path of highly accelerated development.

A big step forward was the development of the first elements of an active loudspeaker system with built-in phase correction. The signing of a contract with the Danish public radio and television broadcaster Danmarks Radio gave rise to the active monitors of the SCM50 and SCM100 series. It was enough to add an advanced crossover and a triple set of power amplifiers (tri-amping) and the SCM50A and SCM100A were born-famous active loudspeakers that are still being improved and are still used in both homes and professional recording studios. The history of the British company is dotted with interesting technical solutions, unusual loudspeakers and awards, as well as the names of institutions and bands, as well as names that every music lover should recognize. Eric Johnson, Ian Anderson, Roger Waters, Kate Bush, Diana Krall, Joe Satriani, David Gilmour, Sting, Coldplay, The Rolling Stones, Lenny Kravitz... Many, many manufacturers of audiophile loudspeakers - even the most successful ones - would give up a lot, to be able to include at least one tenth of these names on their website. And that's not all, because ATC's clients are mainly radio and television studios, clubs, stages and concert halls, sound engineers, recording and mastering studios, and institutions of various types and caliber - from the United States Air Force or the University of Wales to the Tate Modern gallery.

When it comes to the production of loudspeakers, it is safe to say that the British have achieved everything or almost everything in this field (I don't know if winning another award or adding another famous name to the customer list will make any difference to them, but who knows, maybe they still want to track it). And we should stick to this. Both professionals and audiophiles know that in this delicate matter it is often best to trust narrowly specialized companies. We have experts in loudspeakers, amplifiers, transducers, streamers, and even power cables and accessories. Going beyond the area in which we perform perfectly is always associated with considerable risk. You can lose a lot. If the new product series is unsuccessful, the company's reputation will certainly be damaged. Either gently or quite strongly - it depends on the scale of possible failure. At best, customers will think that we are crazy or that someone talked us into an idea that wasn't supposed to work. In the worst case - if we release an underdeveloped, faulty and unreliable piece of crap - some people will even start to say that there is no trace of the old legend, and now we will do everything this way. The potential profit seems much smaller. Well, we will expand the catalog to include equipment from a completely different category, in addition to speakers, we will sell some amplifiers, headphones or turntables, and customers will say that we succeeded because there was no other option. And guess what? In many cases this works. If a recognized specialist in something suddenly introduces completely different devices to its offer, it is worth taking a closer look at it. Focal headphones - excellent. Sennheiser soundbar - a firecracker. Miniature AudioQuest transducers - part. A manufacturer with such a reputation cannot afford unsuccessful experiments. Perhaps we haven't even heard about many of them because the bosses preferred to throw the prototypes into the trash and bear the costs of their development without any return rather tha

So when the first electronic components with the ATC logo were created in 1996, audiophiles quickly started snooping around them, and many of them came to the conclusion that the integrated integrated marked SIA2-150 was an absolute hit. Very strong words were spoken during the tests of this model. It was compared to amplifiers twice as expensive. However, even if we consider the price of SIA2-150 to be a bargain, not everyone can take advantage of such a "promotion". Twenty thousand zlotys for an amplifier is still a lot of money. Especially since the above-mentioned model is a typical "naked" one - apart from the headphone output (located, for some reason, on the back wall) and remote control, there is nothing that would help us save some money on other elements of the system. That's why the company went a step further (yes - in my opinion this is progress) - based on the existing design, it decided to create a smaller and cheaper amplifier, but more functional, more modern and better equipped. SIA2-100 does not have as many analog inputs and outputs and offers "only" 100 instead of 150 W per channel at 8 Ω , but it uses similar - if not the same - technical solutions, has a built-in digital-to-analog converter with three inputs (USB supports PCM signals in quality up to 32 bit/384 kHz and DSD256) and a headphone amplifier operating in class A and supporting earmuffs with impedance from 32 to 600 Ω , and, if you ask me, it is much, much nicer than its big brother. It's time to see what we have here and chase the little ATC integrated around our test track.



Appearance and functionality

The SIA2-100 was launched earlier this year with a matching compact disc player called the CD2. Both components are placed in compact housings, with fronts 2/3 wide of the standard size of 43-44 cm. The new integrated was supposed to be a universal, modern solution combining a digital-to-analog converter, preamplifier and power amplifier delivering 100 W per channel at 8 Ω in one housing. A valuable addition is also the built-in headphone amplifier operating in class A and prepared to work with headphones with impedance from 32 to 600 Ω . So we can say that we have three or four devices in one compact box, although the competition has long accustomed us to richly equipped amplifiers, and lovers of buying stereo equipment based on the cost of individual elements will find at this price amplifiers with balanced inputs and a phono preamplifier. and network functions. This wasn't quite the point here, but it's good to know that British engineers are not completely blind to the changes taking place in the world around us and can offer customers something more interesting than another integrated circuit with inputs described as "cd", "tape" and "tuner". There's still a void in the streamer department, so if someone wanted to build a complete tower of devices that perfectly match each other in size and style, apart from a compact disc player, they won't find anything here for now, but the presence of a DAC with three digital inputs proves that ATC designers they know perfectly well that today the source can also be a computer, network transport or even a TV set. Moreover, the lack of streamers and other sources can be forgiven, because even amplifiers are just an addition to ATC's regular offer, which consists of professional and amateur loudspeaker sets.

GUIDE: How to assemble a stereo system in seven easy steps

The SIA2-150 has many fans in the audiophile world, but even they admit that it is not a candidate for the title of the most beautiful integrated amplifier of all time. Needless to say, the design is its biggest drawback. Theoretically, it should look good because its designers didn't have to face any major limitations. They were not bound by the style of previous models and did not have to add any unusual elements such as color displays or tilt indicators. They could even rely on iconic studio monitors, giving audiophiles an amplifier with a black aluminum front, wooden sides and switches that smell like professional equipment. It could be strict, minimalist, but very elegant. Interestingly, the first versions of the flagship integrated even headed in this direction. A simple front, two large knobs, visible screws and radiators extending on the sides - you could like it. Later, instead of perfecting this design, the company changed course one hundred and eighty degrees, offering audiophiles... Well, what? In my opinion, a device that was supposed to look modern, but was designed without any order and composition. The silver front has round, mirrored buttons and knobs that cannot be grabbed. All that remains is to grow longer nails and operate each knob using small, black protrusions. In addition, there are five vertical crossbars on the front wall, the presence of the middle one could still be justified (an infrared receiver is installed here), but the rest disfigure the amplifier for no apparent reason. Instead of equipment with a professional origin and a raw but elegant appearance, we get something that is simply unacceptable not only for audiophiles, but also for so-called normal people. Instead of normal buttons and knobs - flattened spheres that look like mirrors at an intersection with limited visibility. Instead of nicely machined radiators - a cover with screws sticking out on the sides and arched cutouts that don't fit anything. Nightmare.

Fortunately, British engineers corrected their mistake when designing the SIA2-100. Partially, because the knobs and buttons are the same, but firstly there are fewer of them (standby mode, source selector and potentiometer), and secondly, all kinds of crossbars and other crap have disappeared from the front. The front wall of the described integrated is so smooth and elegant that even this unfortunate knob looks completely good on it. A small display also helped to sort out the situation. In addition, there are two more sockets at the front. The first (3.5 mm) serves as an additional analog input. It may be useful when we want to quickly connect something like a smartphone or a portable player to our amplifier. The second one (6.3 mm) is the headphone output, located right next to the potentiometer. Here, the flat form of a large knob can be a big advantage, because none of the elements covers the other or hinders access to it. I would never have thought that something interesting could be born from the style known from the current version of SIA2-150, but SIA2-100 looks really nice. It is clean, neat and minimalist, and at the same time it is impossible to confuse this amplifier with any other. Personally, I will still argue that the ATC electronics should resemble something between a Naim NAC 252 and a Yamaha C-5000, but maybe I'm just weird (actually, I have no doubt about it).

The most interesting thing, however, is that the SIA2-100 looks good not only from the front. There are many arcuate cuts in its cover, through which we will not see the transformer, capacitors and transistors, but one large, flattened aluminum heat sink, located just below the surface of the steel plate overlapping the sides (this time without the ugly screws, which were moved to the bottom wall). I must admit that it looks quite intriguing. After unscrewing the casing, it turned out that we were dealing with a device built "upside down". After removing the cover, only a small board with a potentiometer (blue ALPS) is visible, and most of the system, including a large toroidal transformer, is mounted on the inside of the heat sink. For this purpose, it has a number of holes for mounting screws. However, these are effectively covered by the cover. The metal plate constituting both the base (also notched) and the rear wall of the amplifier is covered with a slightly bluish varnish, which also looks interesting and adds character to the amplifier. The user has two analog inputs and one output (RCA), three digital inputs (USB type B, optical and coaxial), single speaker sockets and a three-prong power socket with a fuse and a main switch in the form of a black, round button. In my opinion, this is a clear suggestion from the manufacturer to leave the amplifier plugged in, at least in standby mode.

The hero of our test is a compact and functional amplifier, but made very solidly. Just look at the thick aluminum front or the equally interesting radiator emerging from behind the ventilation holes to understand that British engineers really put a lot of effort into this project. While for a professional an amplifier may even be pink, with screws and knobs made of a brush stick sticking out on all sides, few audiophiles do not pay

I would never have thought that something interesting could be born from the style known from the current version of SIA2-150, but SIA2-100 looks really nice. It is clean, neat and minimalist, and at the same time it is impossible to confuse this amplifier with any other.

attention to the appearance and quality of the equipment, which will probably be placed in the central, representative place of the listening room. It should also be mentioned that an integrated amplifier with such an unusual heat dissipation system can get very hot during operation, so despite its smaller dimensions, I would recommend reserving the same amount of space for it as for a classic amplifier. Interestingly, there are symbols and inscriptions on the back stating that the device should not be operated at altitudes above 2,000 meters or in tropical conditions. So if you live in La Paz or Bangkok, sorry - not this time. Speaker terminals accept any type of plugs. Thanks to the slotted nuts, the forks can be mounted very, very tightly. In fact, the only complaint here is the lack of output from the preamplifier or even one pair of XLRs. I didn't like the remote control either - mediocre, ordinary, plastic, just ugly. We can demand something better from amplifiers in this price range. At this level,

balanced sockets are becoming the norm, and many manufacturers will also provide us with a driver in the shape of a wooden boat or a metal card as a gift. However, I don't think such shortcomings should discourage anyone. Whatever you say, the smaller, cheaper and nicer version of the SIA2-150 praised by experts, by definition, must be a tempting proposition for audiophiles, and the remote control and the presence of a transducer and a headphone amplifier make it impossible to call the SIA2-100 poorly equipped.



Sound

The SIA2-100 is one of the devices that clearly does not want to blow the listener away within the first five minutes of listening. British integrated rather focuses on long-term friendship that starts relatively innocently - there is no earthquake or instant, extremely strong infatuation, but we quickly begin to notice that there are no elements that could push us away or offend us, and that is a very good sign. We want to get to know this sound, discover its deeper layers and check how our favorite recordings will sound this time. Every audiophile perceives it differently, but for me the basis of a good relationship with the device being listened to is a certain normality - a combination of correct tonal balance, faithful reproduction of the sound timbre and compliance with a certain pattern that - if you think about it - exists only in our heads (probably, that someone participated in the recording session), as well as the lack of obvious deviations proving that the designers wanted not so much to bring us closer to what we love and shorten the distance between the recipient and the music, but rather to present us their version of events, another interpretation of something, which no longer needs to be processed. Each play of this type is cool and interesting if we can listen to a given device for a few days and then return to the starting point - a safe haven where we feel comfortable and each album sounds as it should. I know this because testing equipment with a bold, unusual sound gives me a lot of fun, but usually I also know that without countering these elements with a source, speakers or cables with a completely different approach to music, it can be tiring in the long run, which I clearly warn against. In the case of SIA2-100 it was completely different. I immediately liked this amplifier. I didn't find anything in its sound that I could immediately fault, and then it only got better and better.

TECH CORNER: Basic properties and parameters of stereo amplifiers

The sound offered by the smaller brother of the SIA2-150 model is primarily a mixture of many, many features desired by audiophiles, which harmonize and cooperate perfectly with each other. You can even say that this cooperation becomes more important here and is placed above each aspect of sound considered separately. Yes, the British integrated can boast a strong punch, very good dynamics and transparency, but its sound is also slightly warmed up. So subtle that some listeners won't even notice it at first. During the test, I couldn't shake the thought that we were dealing here with an electronic equivalent of the pattern characteristic of iconic British monitors - on the one hand, we know that the sound is not 100% neutral, even and tuned "to zero", on the other hand, these minor imperfections are in a sense natural to us and do not irritate us at all, so we start to wonder if sometimes we should trust our ears more than microphones and computers. So if the SIA2-100 turns in one direction, it is always in a direction conducive to listening to music with pleasure, as well as deepening the broadly understood coherence. It often happens that the description of the sound can be limited to a walk through the subsequent features of a given product, but in fact nothing comes of it during listening. You can write something interesting about low, medium and high tones, about dynamics and space, but ultimately all this is presented separately and does not correspond with each other at all, does not overlap, or, as one of my friends says, "does not talk". The SIA2-100 definitely talks. When we stop analyzing the individual components of its sound and slowly start absorbing what the described integrated has to offer us, the sound composed by British engineers will begin to reveal new details and secrets to us, opening up layer by layer.

The SIA2-100 is not a 100% neutral amplifier, devoid of its own character, but all the characteristic elements are accentuated relatively gently here. None of them stands out, and the music is presented in an extremely friendly, easily digestible, even physiological way. Is the sound warmed up? Yes, but only slightly, with great sensitivity, without muddying the sound or making the vocals red hot. Are the highs rounded and nicely polished. Yes, but only where any "surprises" in the recordings could lead to unpleasant squeaking, hissing or general flattening of the sound. ATC is not hiding anything from us. It seems that in the case of an amplifier designed by a renowned studio equipment specialist, this

would be unthinkable. However, no one said that every single detail must be presented in such a way that we can notice it even when sitting behind the sofa, under a blanket, with earplugs in. I think that the professional pedigree of this brand's electronics also makes itself felt here. Professionals must, of course, trust the devices they work on. The equipment cannot hide anything from them. However, it doesn't have to sound dry, flat and unpleasant. Some people like it, but in many studios monitors with this sound are used only temporarily - they stand on the console so that after the work is finished, they can be connected for five minutes and check whether the music will sound good even on such equipment. Generally, however, you need some comfort, which ATC speakers undoubtedly provide. Pleasant meets useful. SIA2-100 gives us the same thing. A slight warming does not necessarily mean that in stronger musical genres everything starts to blend together, and an elegantly finished treble does not automatically make the amplifier deal with micro-details like children at the cinema with chips and popcorn.

There are also two elements in the sound of the described integrated that deserve a closer look. The first is the bass - strong, rhythmic, perfectly controlled, but not as cardboard and massless as it might seem. At first I thought that we were dealing here with a slimming down typical of some British amplifiers. Maybe it's not entirely accurate, but I can't think of a better adjective at the moment. Audiophiles, however, know perfectly well that from amplifiers by Naim, Exposure, Cyrus, Audiolab, Quad and several other brands we can expect a characteristic bass, which is first and foremost supposed to be strong, robust, fast and driven with an iron fist, and only then (usually in higher-end models) deep, fleshy and saturated. What the SIA2-100 presents in terms of low tones fits the above description only partially. We are dealing with a decent, healthy bass, which was slightly weakened only in the lowest registers (to my ears from about one hundred hertz, but I am not a cyborg with a built-in measurement system, so please do not rely on this value) - so that the sound was strong and full-range, but did not fall into unpleasant humming even on poorly produced albums. In my opinion, this is not a coincidence, but a fully intended effect, with which the manufacturer wanted to somehow protect himself and his customers against the effects of decisions on which the amplifier has as much influence as environmentalist protests on oil extraction. Even audiophiles who spend tens of thousands of zlotys on electronics are not always able to choose loudspeakers for the listening room, not to mention master its acoustics or properly set up the equipment. You may as well know all the rules and be able to apply them, but not have the right conditions to do so. When we are limited by the arrangement of furniture that we cannot get rid of, and investing in acoustic panels in a rented apartment is pointless, what is there to argue about? SIA2-100 will allow us to enjoy good, colorful, saturated and fleshy bass without side effects. Maybe we won't hear the lowest, subwoofer-like rumbles that spread across the floor (or we'll have to reach for the appropriate speakers or concentrate a little to notice that these lowest frequencies are still there somewhere), but we shouldn't get an undesirable bass amplification effect either, reflex humming.

What is most impressive, however, is the space. To put it briefly - many amplifiers for much, much more money would be proud of such a three-dimensional, well-organized and precise stereo sound stage. It is also the only element that can, and perhaps even should, be considered separately from the rest, because intuition tells us that the ideal complement to such a sound should be a space concentrated in the foreground, with the vocals slightly pushed forward, or even a little tight., reminiscent of the atmosphere of a smoky club where only a bartender sits more than ten meters from the stage. And that's not true. It is enough to treat the SIA2-100 to a good recording and it will take advantage of the opportunity and fill our listening room to the brim with sound, drawing before us a wide, deep space in which all shapes, outlines and distances are defined so precisely that we have no doubts about what the artist had in mind. mean. So while in this price range you can find amplifiers offering such a natural, musical and easily digestible sound, adding to the list of advantages a large reserve of dynamics (which the SIA2-100 has), sufficiently good transparency (also) and wonderful stereophony usually requires exceeding the magical barrier of fifteen thousand zlotys.

Both accessories mounted in this inconspicuous housing have proven themselves in combat conditions. Considering ATC's reputation, this may not be a big surprise, but for me it's a big plus, because I get terribly irritated when manufacturers put transducers, headphone amplifiers or phono preamplifiers in their amplifiers, which in the end turn out to be of little value, so the users anyway they need to buy something better soon. The British did not make this mistake.

Speaking of which, both the built-in transducer and the headphone amplifier confirm the high value of the tested amplifier. I achieved such high sound quality on the digital inputs that if I were SIA2-100 owners, I would consider purchasing a network transport instead of a streamer or other source with an analog output. Why complicate matters and add another converter to the system when the one on board the integrated is really, really good? Auralic Altair G1, Lumin U1 Mini, Bryston BDP-3? Yes, I would probably aim for something like this, leaving the purchase of a high-end converter for later. There is also no shortage of cheaper, smaller players with digital output, so if the SIA2-100 goes slightly beyond your budget, you can always choose something like Auralic Aries Mini or Primare NP5 Prisma and there will be no big problems. However, if you like or sometimes have to listen to music with earmuffs, you can also skip purchasing a dedicated headphone amplifier. Even with high-end models (well, maybe not the extremely high-end ones), the SIA2-100 should be able to handle it quite easily. Neither the Sennheiser HD 600 nor the 250-ohm Beyerdynamik DT 990 PRO impressed him. This is good news because due to its dimensions, SIA2-100 can be used as an element of a highclass desk system, where headphones are sometimes more important than speakers. Either way, both accessories mounted in this inconspicuous housing have proven themselves in combat conditions. Considering ATC's reputation, this may not be a big surprise, but for me it's a big plus, because I get terribly

irritated when manufacturers put transducers, headphone amplifiers or phono preamplifiers in their amplifiers, which in the end turn out to be of little value, so the users anyway they need to buy something better soon. The British did not make this mistake. The SIA2-100 may be small, but it surprised me at least a few times. And that's absolutely positive.



Construction and parameters

ATC SIA2-100 is a stereo integrated amplifier equipped with a digital-to-analog converter and a headphone amplifier operating in class A. The manufacturer informs that reducing the size of the housing to approximately 3/4 of the standard width of 43-44 cm was beneficial not only for practical but also for purely from a mechanical point of view, increasing its stiffness and preventing the transmission of external resonances to sensitive electronic systems. The 12 mm thick front wall is made of aluminum tinted in the silver-titanium color typical of other ATC products, the base and rear wall are covered with bluish varnish, and the "C"-shaped cover, with interestingly cut ventilation holes, is screwed from the bottom with four large screws. The device should be opened very carefully so as not to scratch the elegant aluminum heat sink located just under the cover. When this is achieved, what we see is only a small board, the central element of which is the motorized ALPS potentiometer, and another, much smaller one, containing several control circuits. The mentioned radiator takes up the entire width of the housing and extends to the rear wall. The most important elements of the amplifier are attached to it from the bottom, including the power supply based on a large toroidal transformer and the power amplifiers. The manufacturer informs that this section uses technologies developed for ATC amplifiers over the last thirty years. It's hard to believe, but you can guess that certain elements were taken from amplifiers designed for active loudspeakers of this brand, or at least they have something in common with them. The company claims that very low distortion and wide frequency response are due to MOS-FET transistors in a common source system, and a separate power supply for the preamplifier and power amplifier reduces intermodulation distortion and inter-channel crosstalk. In fact, no parameter visible in the technical data table gives the discontented users a reason to complain, which, combined with the power of 100 W per channel at 8 Ω, makes the SIA2-100 a truly versatile machine. The manufacturer also claims that the extensive design of analog circuits, along with the use of many local power stabilizers, allowed for obtaining optimal conditions for the built-in DAC. The USB input supports PCM signals from 44.1 to 384 kHz with a word length of up to 32 bits, as well as DSD256. On none of the digital inputs the distortion does not exceed 0.001%. The headphone amplifier section looks no worse, made of discrete elements and supporting earmuffs with impedance from 32 to 600 Ω. ATC emphasizes that the SIA2-100 is handmade in the UK. The company must be convinced of the high quality and reliability of its equipment, because it provides a 6-year warranty for the described amplifier.





Verdict

The SIA2-100 may look inconspicuous, but it is a great amplifier. Its sound is natural, coherent and musical, but does not smell boring. The package includes good or even very good dynamics, rhythmic, perfectly controlled bass and a space that I am not afraid to call phenomenal at this price level. All this means that you can quickly become friends with the British stove. And when this happens, it will also turn out that despite some departures from neutrality, you can easily serve him music that is diverse both in terms of genre and quality of production. If you choose the right equipment, which shouldn't be difficult, after a short warm-up you will be on the path leading to long, pleasant listening sessions, which will not be interrupted by any grating sound or the recurring thought that something is not right here. First of all, I would recommend this amplifier to music lovers looking for equipment with an original, slightly warm and spacious sound, as well as to audiophiles who, despite various measures, cannot control their speakers and create a healthy, three-dimensional sound without loud bass or sharp treble. Integration for special tasks? In a sense, yes, but I am convinced that it will work well both in more difficult situations (for example, where you have to take into account capricious acoustics and limited possibilities of positioning the speakers) and desktop systems (recently becoming more and more popular), as well as classic stereo sets, where you need at least one element you can trust.



Technical data

Power: 2 x 100 W/8 Ω

Analog inputs: 2 x RCA, 1 x 3.5 mm

Analog outputs: 1 x RCA

Digital inputs: 1 x optical, 1 x coaxial, 1 x USB

Converter: 32-bit

Frequency response: 2 Hz - 250 kHz (- 3 dB)

Distortion (THD): < 0.0015 % Signal-to-noise ratio: > 96 dB

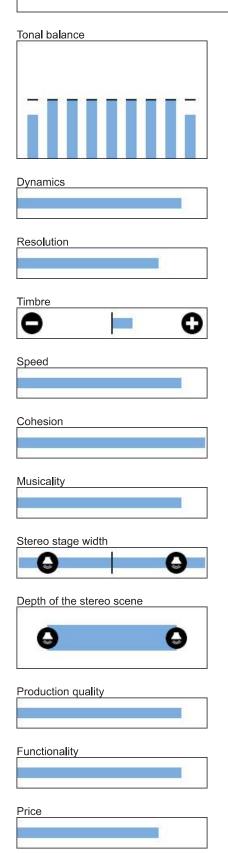
Dimensions (H/W/D): 11.3/31.5/31.5 cm

Weight: 9.7 kg Price: PLN 13,290

Configuration -

Audiovector QR5, Wharfedale Linton Heritage, Marantz ND8006, Cambridge Audio CP2, Clearaudio Concept, Sennheiser HD 600, Beyerdynamic DT 990 PRO, Cardas Clear Reflection, Equilibrium Pure Ultimate, Enerr One 6S DCB, Enerr Transcenda Ultra, Enerr Transcenda Light, Enerr Tablette 6S, Norstone Esse.

The equipment for the test was provided by Sound Source . The article uses photos provided by ATC and taken by the editors of the StereoLife portal.



















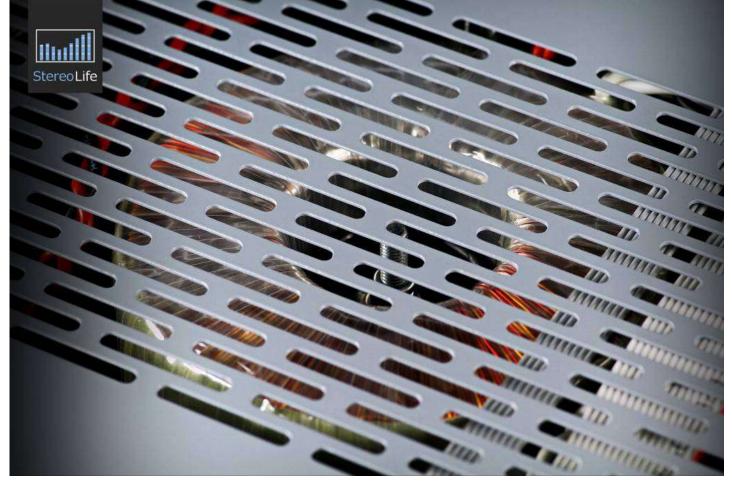














« prev.