## **SUONO JUNE 2022**

## **INTEGRATED AMPLIFIER - Aavik Acoustics U-180**

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We can define Audio Group Denmark as a kind of association of Northern European top experts in terms of high fidelity. Indeed, to Audio Group Denmark belong brands such as Ansuz (cables and accessories), Børresen Acoustics (loudspeakers) and Aavik, which manufactures amplifiers, converters and streamers. However, what distinguishes Audio Group Denmark from a conventional grouping of brands, is the fact that those who launched these brands (Lars Kristensen and Michael Børresen), have over time shared their experiences with each other and are continuing to do so. Now, contributing (now even with the addition of a new member, Flemming Rasmussen - formerly owner of Gryphon) to the development of products that go beyond the sectarian logic and vested interests of a single brand (see SUONO 561 - pp. 38). Recently, Kristensen and Børresen have sold 45% of Audio Group Denmark to the Danish investment fund Vækst-Invest. At the same time, the new CEO Kent Sørensen has arrived, freeing Kristensen and Børresen (the first as marketing expert, the second as chief engineer) from their mainly financial tasks and opening up a new chapter for both of them. A move that will pave the way to even more promising results.

Let's return to the Aavik Acoustics U-180 amplifier series, one of the already ripe fruits of this consortium: The subject of our test is Aavik Acoustics' latest series, available in three quality levels (180, 280, 580), which differ, broadly speaking, in the number of Tesla coils fitted in the amplifiers of each series (active square Tesla coils – active coils used on both sides of the double–sided PCB), anti–antenna coils and dithering circuits, the number of which varies again, depending on the model. It seems that Audio Group's development team is obsessed with the fight against mechanical and electrical noise cancellation and massively uses this technol-

ogy across all their audio products. I must say that I absolutely agree with their philosophy. The results that the tested Ansuz accessories achieved in the aforementioned SUONO test also confirm this.

The "U" in the product series of tested amplifiers denotes what Aavik calls "Unit", i.e. amplifiers with a D/A conversion unit on board; "I" stands for "Integrated", "D" for converters and "R" for phono stages. However, the best result of the Aavik philosophy is expressed in the series of separate preamplifiers and amplifiers that complete their audio product range ... (P280-C280 and P580-C580).

It is interesting to note that all of the above devices have the same cabinet. Only the large display on the front panel informs us which device it actually is, apart from the rear of the amplifier that lets us identify the product by the series number and type of connectors. The cabinet is made of NBSM, an innovative composite material used instead of the classic aluminum frame. According to the manufacturer, the composite material of the cabinet reduces mechanical influences and, in particular, hysteresis. The 580 series is fitted with additional features, such as a titanium-made cross on the top of the cabinet, a copper lined interior, and titanium feet instead of aluminum. Similar to the outer frame, there are only few obvious differences inside. The amplifier module is identical and the power supply of the three models is the same. As with other amplifiers, the U-180's stated output is 300 watts per channel in Class D. I'm sure, the classic audiophiles will turn up their nose at this, clinging to the rigid canons of tradition, and skeptical of any change or innovation. Perhaps, it would be good to let those traditionalists know that I myself have tried excellent D-class amplifiers in the not too distant past, and that the U-180, confirms the high level of incorporated sophisticated technology, which is equal or even superior to so-called traditional products. Aavik believes so much in this technological change that they build only Class D amplifiers. Price tags, however, reach remarkable figures for their most advanced amplifier series!

I can think of a parallel with photography. It wasn't long ago that the sophisticated enthusiast would never have accepted a mirrorless camera at the high-end of the professional segment (because of the view through the pentaprism, because of the classic picture produced by the mirror, etc.): Now the main brands on the market, faced with the enormous progress and results that satisfy even outstanding professionals, have decided to abandon the production of professional pentaprisms and switch definitively to mirrorless cameras, with great results!

But back to our U-180 and its powerful interior, enclosed in a cabinet with small dimensions and weight (one of the advantages of class D!): the cabinet is completely closed, without vents. On the front panel, there is a large function button, in aesthetic continuity with the first devices of the brand, where the size of the button even exceeded the size of the display! On the opposite side of the function button, there are three buttons: on/off, up/down, menu. All the remaining surface of the front panel is occupied by a large display, visible from any point of the room, with the option of varying the brightness. An automatic shutdown occurs one to five seconds after the last operation. What struck me was the total absence of balanced inputs, which are not available, even in Aavik's premium series. This reflects their uncompromising philosophy, of which we only take note ... The U-180 comes with a small remote control, which is, to my mind, too minimalist. When playing the U-180, I immediately noted how its compactness, handling and portable weight made me enjoy this device to the full.

I carried the device around to the homes of several fans. This allowed a comparison with various other amplifiers and speakers: Perhaps, the appearance of the

U-180, although being refined and special, will not excite as in the case of traditional large, integrated or massive pre and main amplifiers, but as for the sound, it has caused some "cold sweats" and has even trumped others without the possibility of objecting. In the price range of up to 10.000 euros, I think it's hard to find anything better. Beyond this figure, it is not certain. But we are still only talking about the amplifier section (without the converter component, the costs are only 6000 euros, which

limits the number of competitors that can deliver a similar performance even more). With the calculator and the price lists at hand, the U-180 is even more competitive if you take into account the integrated converter (with a savings of 3000 euros compared to separate products). Again, the benefits of this unit are absolutely exceptional: It offers an exceptional sound, very balanced and musical and, above all, sonically very correct. The bass was deep and very consistent and there was an absolute control over each speaker to which the U-180 was connected. I was impressed by the great ability to send streams of information that made the smallest sonic details and nuances audible on an extremely quiet background. When we then added the recently tested Ansuz accessories, the silence just described was further enhanced. This gives the U-180 that certain something that sets it apart from other integrated amplifiers.

With Holst's The Planets, the U-180 was always the winner in a series of cross-comparisons with a much more expensive preamplifier and power amplifier. In part, because the U-180 maintained superior discrimination at moments of maximum instrumental crowding, not because of its high output, but because of its attitude of eliminating everything that doesn't belong to the message, leaving more space and expressiveness for the various instruments. In various comparisons, it seemed that the U-180 was reproducing a CD recording more accurately and cleanly. This should not give the impression that something is subtracted from the sonic message to empty it and make it more aseptic. On the contrary, the beauty, the accuracy and the precision of the timbres offered the highest levels of satisfaction. And as I had tried to describe in the review of Sortz and Sparkz by Ansuz, I had now the same feelings when listening to Patricia Barber live, but in a more pronounced form. The ambience of the performance venue, the various ambient sounds, and especially the applause materialize in the listening environment, eliminating a kind of curtain that comes between you and the place of the recording. The U-180 created a very accentuated 3D effect and an excellent scenic reconstruction. All of this thanks to the well known added value that can reproduce a dark and extremely quiet background. On the converter side, there is little or nothing to add. It is based on the same philosophy as the amplifier, where the performance is best when using any digital input: There is never the feeling of a digital effect. The ability to turn upsampling on and off or to choose between a slow and a fast filter increases the options, but does not limit the audio performance. In short, a DAC that is equipped with everything that digital playback currently requires, and at a price that, when considered as part of the overall package, is truly competitive.

The exclusive philosophy of this company, aimed at pursuing alternative paths in the treatment of audio signals, different from the paths usually followed by other manufacturers, seems to offer really very interesting results. Aavik offers innovative products of the highest level of audio performance.

But unfortunately, these products come in many cases at prohibitive prices. For consolation, it should be said that in the list of products from Aavik, at least this amplifier, although not quite cheap, is within the reach of many enthusiasts. And the high price is amply repaid by the results obtained.

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In the field of preamplifiers and DACs, there are 24 Tesla Square coils in square form directly engraved on the printed circuit. The "Anti Aerial Resonance Coils" suppress the antenna effect and the cable resonance. They consist of spiral windings, arranged around to power cables, which extend to the output terminals.

The 36 Tesla coils, which are connected to a cable spiral, are mounted on a printed circuit board and arranged vertically in six groups of six coils each.

The power stage uses a monolithic module M-Pro2 from the company Pascal Audio from Denmark with a power of 2x400WRMS at 8 ohms or 2x800WRMS at

4ohms, also equipped with an appropriate power supply. Aavik has already developed other audio solutions together with some experts from Pascal Audio.