

Hot northerner

Review Aavik I-180 amplifier

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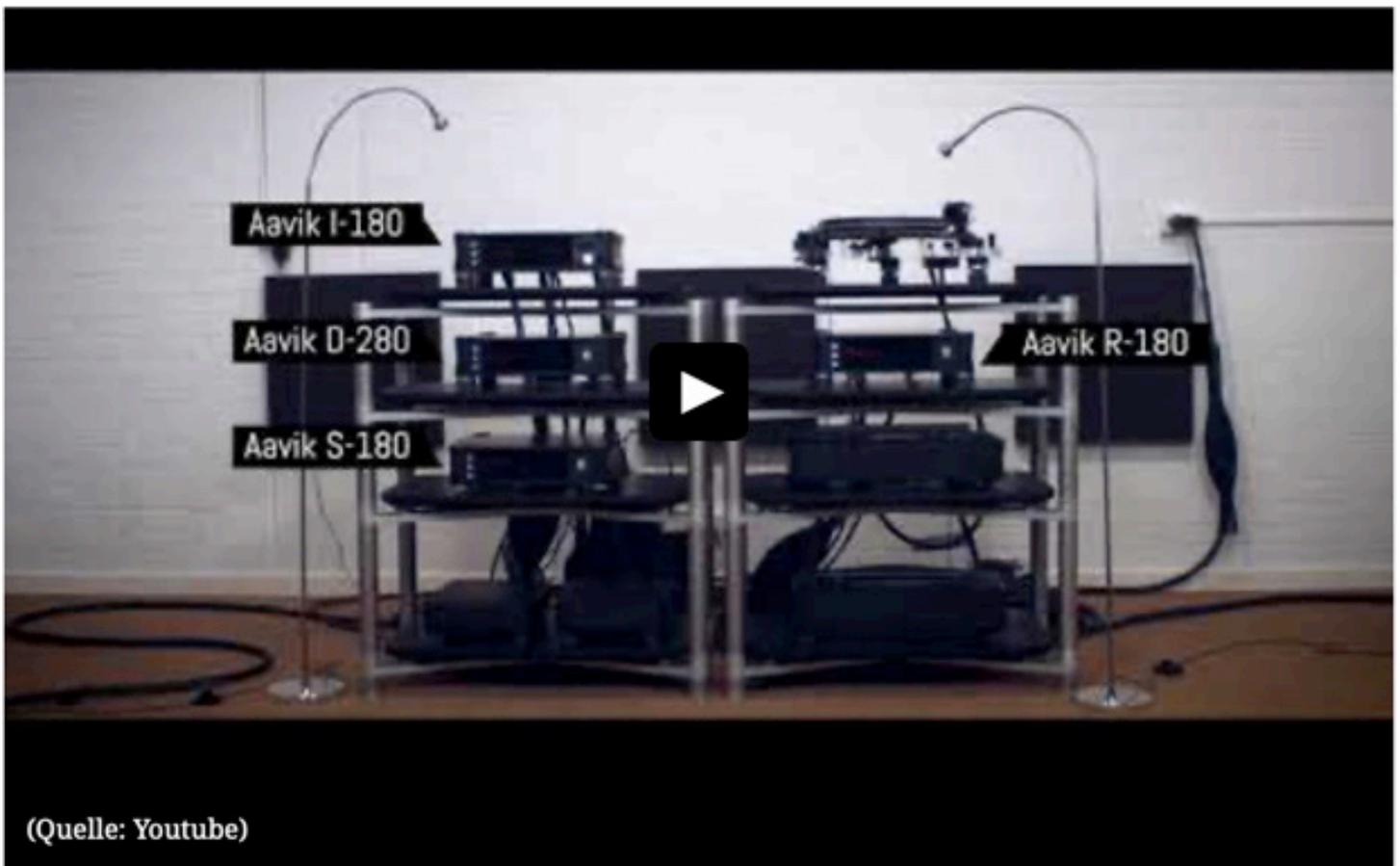


Aavik Acoustics, practically unknown in Switzerland, belongs to the young Danish triumvirate, along with Ansuz Acoustics and Børresen Acoustics. The Danish trio of «Audio Group Denmark» operates in the northernmost Danish city of Aalborg. This troika arose from the high-end loudspeaker manufacturer Raidho Acoustics. In 2017, Raidho was acquired by Dantax and the current heads behind Børresen, Aavik and Ansuz then left Raidho Acoustics and founded the three current companies.

Why three companies and not everything under the umbrella of one brand? Lars Kristensen, one of the managing directors and sales managers, emphasizes that it is safer to operate in the market with three different brands with different product lines. If one line is no longer doing so well, it can be sold or discontinued without affecting the remaining two lines. In addition, the three product lines complement each other ideally, also in terms of marketing and sound! This also allows retailers to choose just one or two product lines without having to take all three brands into their product range. Pretty clever, these Danes!

Alesca Audio Fidelity in Fehraltorf, itself brand new to the Swiss market and recently opened, sells the three young and fresh Danish brands from Aalborg in Switzerland and Liechtenstein. From the Aavik product range, Alesca currently sells the latest 180/280 and 580 series.

In this review, we test the integrated Aavik I-180 from the 180 base line. We have already tested the Børresen loudspeakers and we will focus on Ansuz products at a later date on avguide.ch.



Danish design as seen here on the I-180 amplifier: modern yet timeless.

Aavik history and technical backgrounds

The technical mastermind behind the Aavik components, as with the Børresen speakers, is Michael Børresen. And as with the loudspeakers, he has pursued a completely new design approach in the engineering of Aavik components. To understand the specifics of Aavik's design, we need to go back 80 years and into the military technology of that time.

The British were radar pioneers in World War II and realized that their radar-equipped destroyer ships could detect submarines faster and more effectively than radar aircrafts. Theoretically, it looked at the time as if all the advantages would be in favor of the aircraft. However, according to Michael Børresen, the engineers at the time had discovered that it was the swell or wave motion of the radar tracking ships that generated a modulation and thus, these ships were more successful than aircrafts.

As an example, Michael Børresen states that if you hold your hand motionless in front of your face, the field of vision is obscured for the most part. But if you move your hand quickly up and down, you can see much more. So you get more information with this “modulation” of the hand. This is the technical trick with the Aavik electronics.

Quote from Michael Børresen: “The electrical fluctuation, i.e. tiny modulations in the time axis, thereby sending more acoustic information into the listening room.” The many tiny coils used for this purpose - Aavik calls them “Tesla Voice Coils” - are part of an oscillating circuit that incessantly shifts the signal. The Aavik circuit modulates the signal in its entirety on the time axis, but in itself remains unaffected overall.

This exclusive circuit is not only found in the amplifiers, but also in the Ansuz cables, power strips and LAN switches. Every single one of the small cable spirals is cut, twisted, wound and soldered onto the circuit boards by hand in the factory. Depending on the device, this can take several hours of work and partly explains the rather steep retail prices of Aavik and Ansuz. We are planning another detailed test report on the interesting Ansuz components.

The three Aavik amplifiers, DACs and streamers each differ mainly in the number of Tesla Voice Coils, Tesla Square Voice Coils and the dither circuits used. The top amplifier model I-580 also boasts a copper shielding and a resonance control made of titanium.

Aavik Integrated Amplifiers	I-180	I-280	I-580
Aavik™ NBCM ¹⁾ Cabinet	•	•	•
Aavik™ Copper Inner Chassis	-	-	•
Aavik™ Titanium RC ²⁾	-	-	•
Ansuz™ Active Tesla Coils	36	72	108
Ansuz™ Active Square Tesla Coils	96	168	240
Ansuz™ Dither circuitry	5	8	11
Ansuz™ Anti Aerial Resonance Coils	4	4	4

¹⁾NBCM: Natural based Composite Material ²⁾Resonance control

This list gives an overview of the components installed in the three amplifier models from Aavik

For digital amplifier technology, Aavik relies on the patented UMAC™ amplifier technology. The UMAC™ Class D modules are also used in the professional sector and are known for their performance and large signal-to-noise ratio. UMAC™ technology primarily targets two areas of modulated amplifier design.

First, pulse width modulation is generated with sine wave modulation rather than the more common triangular modulation. The advantage is that sine waves generate far less high-frequency noise than triangles, have no sharp corners, and thus require far less inductive filtering at the output. According to Michael Børresen, sine wave modulation is said to be responsible for the round, almost tube-like sound of the Aavik components. The lower inductance at the output gives the amplifiers a much better damping factor and thus a much better speaker drive.

Second, advanced dual-mixed-mode feedback enables attenuation factors characteristic of only the very best linear amplifiers



The high-quality and specially designed interior of the I-180: Well visible is the battery of the handmade voice coils (upright, centered).

Apart from the special visually appealing look of the Aavik components with a touch of Danish design, the housing material used is worth mentioning. In contrast to the commonly used aluminum or steel materials, Aavik uses a composite material as the housing material.

In long listening test sessions at Aavik, it was found that common metals generate vibrations that generate audible distortions. The housings are relatively sensitive to fingerprints in everyday use. Therefore, cloth gloves are recommended for assembly and dismantling. A tip: You can remove such fingerprints with window cleaner, used sparingly and wiped off immediately.

The test object: the integrated Aavik I-180 amplifier

The integrated Aavik amplifier, the I-180, looks identical to the DAC D-180 and the Streamer S-180 with the exception of the volume control on the right. Like the streamer and the DAC, it costs CHF 6,000 each.

The rounded corners, the matt black housing and the large front display are something completely different and once again live up to the good reputation of Danish design. In addition, the recognition

value of the Aavik components is super good. We particularly like the large, red display that fills two thirds of the front. The display can also be read very well from a distance, so that older high-end fans can put their reading glasses aside. Incidentally, high-end purists can also switch off the display completely. In addition to the Danish design touch, the Aavik look also has something of the 70s retro look, especially with the display. Really well done!



Round shapes - modern and timeless.

The I-180 has five analog inputs. Their volume levels can be controlled individually. One input can also serve as a bypass, which can be used for an AV home cinema system, for example. In addition, the I-180 has a pre-out output that can be used to drive a headphone amplifier, subwoofer, power amplifier or other component.

The remote control is identical in construction to the Apple TV remote control and fulfills the minimum operating functions such as volume, source selection, mute and more. This is certainly useful so that you can operate the basic functions without the smartphone or iPad. The remote control is small, slim and sexy, but it also likes to hide in the cracks of the sofa.



The back of the I-180

The three Aavik components stand on four corner feet, each one on top of the other, and, for further resonance control, on three ceramic or titanium balls per foot optionally offered by the manufacturer.

Aavik app

The Aavik app could not be tried out, as it is only available for the iPad and I did not have an iPad available. However, as a substitute, one can use the Mconnect app for the iPhone; and Android users can also work with the Mconnect app. Unfortunately, the stability of this app was not always good, but the operation was up to par. Like the Aavik app, the Mconnect app supports the usual music portals like Qobuz, Tidal and Spotify. According to Aavik, the Aavik streamers should also be “Roon ready” with an update this June.



Listening test

Our listening test chain consisted, in addition to the Aavik chain, of high-quality Ansuz speaker cables and the Vimberg AMEA speakers, also brand new in Switzerland, also from the Alesca range. We will then test the Vimberg AMEA separately here on avguide.ch.

The visually attractive AMEA 2-way speakers also match the Aavik components very well in terms of performance. With 86 dB efficiency and a nominal impedance of 5 ohms, these high-end speakers do require a bit more power. The I-180 amplifier easily shakes 300 watts at 8 ohms and an incredible 600 watts at 4 ohms out of its slim, beautiful sleeves.

As noted in the speaker test report on the Børresen 02, the Aavik electronics have a grip on the speakers with an iron fist wrapped in velvet gloves. The electronic bass of electro DJ William Orbit came driving, precise and with the necessary speed. Likewise, electro duo HVOB (my new spring discovery) played their almost hypnotic sound with the necessary low-end punch. In addition, the accompanying melancholic voice of Anna Müller had just the right timbre. Play tip: "Attention" - album title "Trialog" - really cool and well recorded to boot!

Speed is also one of the most salient audio characteristics I encountered again and again when listening to the Aavik components - no matter what style of music. My working tube unit seemed almost slightly sleepy and leisurely on the go in comparison. In general, the entire spectrum of music came across as if from a single source - from bass to the highest notes. I associate the Aavik sound with the deep, clear water of a Scandinavian fjord - a nice, fitting image, I think.

As a resolution fanatic, I was super served without the sound drifting into the analytical. Also, the music never became harsh or hard and even had a touch of tube warmth. Michael Børresen assured me that it is precisely the sine wave modulation instead of the usual triangle modulation that is responsible for this round and, in a positive sense, analog sound of the Aavik amplifiers.

For voices or string instruments, however, the Aavik components remained on the neutral side. A tube brings a voice or a violin a bit more organically or more colored, depending upon the individual sound ideal. But it's all good - I always had a lot of fun and could dive into the sound realms for hours with the Danish components and zapped my way through my Qobuz playlists. The power of 300 watts provided by the I-180 gave me the reassuring feeling of always having generous power reserves available. Just like the power specifications of Rolls-Royce luxury cars: more than sufficient at all times. 'Great cinema!'

What the 280 or the top series 580 can do even better than the tested Aavik 180 amplifier, you will find out at a later date.

Conclusion

Aavik, a brand that is practically unknown in Switzerland, celebrates a great debut. Visually attractive, distinctive and in Danish style dress - in the little black dress so to speak. In addition, a high-quality, out-of-the-box constructed interior: The Aavik high-end components have what it takes to become a high-quality classic! With the ingenious sounding amplifier tested here, Michael Børresen and his Aavik team have succeeded in creating a challenge for established champions, and it makes you want to hear even more Aavik! Mange tak, Michael Børresen.

FACTSHEET

Model:	I-180
Profile:	Integrated digital amplifier
Pros:	<ul style="list-style-type: none"> - Fine and natural sound - Power reserves for all high-end conditions - High power reserves and good speaker control - Extremely high signal-to-noise ratio - Visually attractive, off the mainstream
Contra:	<ul style="list-style-type: none"> - Operation takes some getting used to - no balanced inputs - fits optically perfect only within the product line - Aavik app only runs on iPad
Price:	6,000.00 CHF
Manufacturer:	Aavik Acoustics
Year:	2021
Distribution:	AC Group Inc.
Dimensions:	102 x 384 x 400 mm
Weight:	8.8 kg
Color:	black
Airplay:	No
Bluetooth:	No
Chromcast:	No
Roon Ready:	Yes
Spotify Connect:	No
Balanced Input:	No
Wi-Fi:	No
Analog Input:	5 x RCA
Analog Output:	1 x RCA Pre Out
Maximum Power:	600 watts at 4 ohms watts
Remote App:	YES
Amplifier power 8 Ohm:	300 watts

Onlinelink:

<https://www.avguide.ch/testbericht/test-aavik-i-180-verstaerker-heisser-nordlaender>