



<https://www.lowbeats.de/test-aavik-i-580-daenischer-edel-vollverstaerker-mit-extrem-filterung/>

## TEST Aavik I-580:

# This integrated amplifier does many things differently – and sounds breathtaking good



With the Aavik I-580 integrated amplifier, Michael Børresen takes his strategy for signal purification with „Tesla coils“ to the extreme. The concept is a complete success, but it comes at a price.

The developers of the Danish noble manufacturer Aavik have an unusual development approach: The integrated amplifiers of their 80 series are almost identical except for the number of installed, Børresen-typical Tesla coils and dither circuits, but are far apart in price and sound. We took a closer look at this bizarre concept in the [double test of the Aavik I-180/I-280](#) (6,000 / 10,000 euro) and were surprised. With that, however, the test raised another question: Can the „biggest“ amp in the series, the Aavik I-580, which costs 20,000 euro after all, once again clearly distance its overwhelmingly good-playing brother I-280 in

terms of sound, even though it differs so little in terms of construction? The answer is again surprising: yes!

You don't have to be good at reading between the lines to recognize my enthusiasm for the Aavik integrated amplifier I-280 in the test just under half a year ago. I was quite amazed how the Danish amp with the unusual design and technical concept literally plastered other amplifiers known to me for breakfast and was also able to distance its smaller and very similar brother I-180 - although there are also quite





The I-580, here on the D-280 DAC, in frontal view

minor technical differences between these two. After that it was clear that I would hardly get past a detailed test of the top model.

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time I have come to know and appreciate it like no other amp. Also the direct comparison with the I-280 was granted to me a few weeks. In addition, during this time my reference speakers [Børresen 02 have been upgraded to the Silver Supreme Edition](#) and I have since had the opportunity to upgrade my power supply with the Ansuz Mainz8 X-TC power distribution plus X2 power cables and Sparkz harmonizers. All products or brands of Audio Group Denmark around Michael Børresen and Lars Kristensen.

Have I fallen for a brand philosophy? Well, a little bit. But I don't let myself be labeled as a „fan“ because of that. I don't really care about brands. Be it cars, cameras or even hi-fi. I change brands like Lady Gaga changes her outfit and am purely result-oriented.

The fact that I am currently knee-deep (not up to my neck) in Børresen equipment with my main system is also only due to the result, because I have never had a more coherent chain in my listening room - a more expensive one either. But quite a few with illustrious names like Krell, Pass, Meridian, Rowland, Wilson Audio (currently back in my second system), Focal, B&W, KEF and whatnot. Never have I had anything even close to such a coherent and natural overall picture as I have today.

The chain currently looks like this:

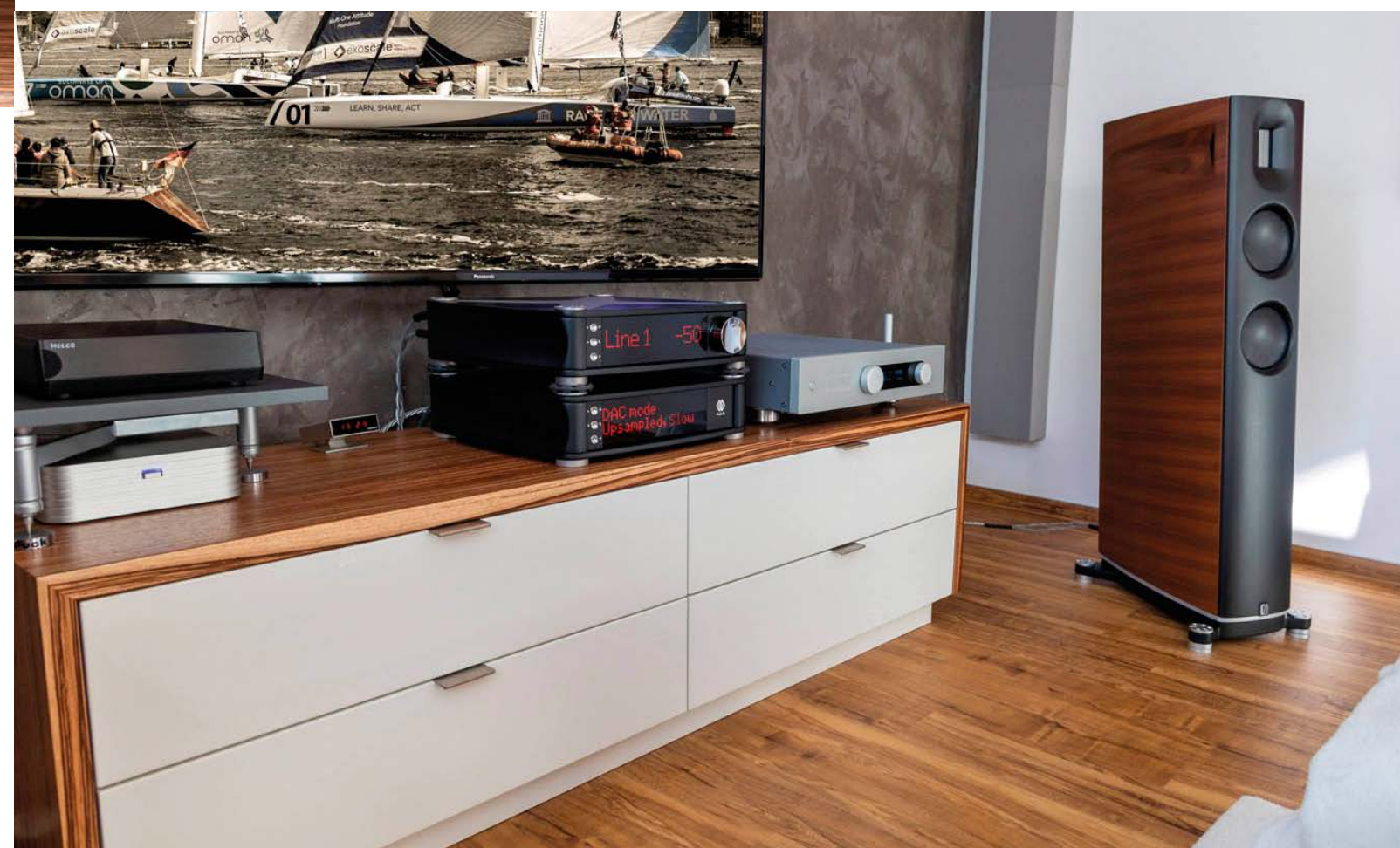
From the router it goes first into an optical converter and via fiber optic cable into the Melco S100 switch. The Silent Angel Rhein Z1 as Roon Core and the Trinnov Amethyst as streamer

ming player and surround sound processor are connected to it. The last one does not output the data via its own analog DAC, but passes them digitally via S/PDIF to the Aavik I-280 DAC, which is connected to the I-580 integrated amplifier. This feeds the Børresen 02 SSE speakers. Accessories and room tuning measures left aside here.

As every experienced hi-fi fan knows, practically every link in a reproduction chain, no matter how small, has an influence on the sound. Just not all of them to the same extent. Loudspeakers and room acoustics make up the lion's share, then comes the analog electronics (here the amplifier), only then the digital components as well as measures for the power supply (power supplies, cables, strips...), loudspeaker and

(Photo: F. Borowski)

The chain: On the left edge of the picture, the Melco S100 Switch and the Silent Angel Rhein Z1 can be seen as the Roon Core. In the middle the Aavik I-a580 (above) and the D-280 DAC. Player: Trinnov Amethyst, loudspeaker: Børresen 02 SSE (Photo: F. Borowski)







interconnect cables, and finally details such as special equipment feet - just as a rough classification. Some may see the weighting a bit differently.

Gentle transition to the test candidate... The I-580 - a purely analog specimen, by the way - definitely has quite a large share in the overall result. It has to provide enough power

for the connected speakers and, last but not least, work stably on all loads. The Aavik amplifiers, like the Ansuz brand components, are all matched to each other with a consistency I've not seen elsewhere. But how many other high-end manufacturers have developed everything in-house, from the rack to the accessories and electronics to the loudspeakers?

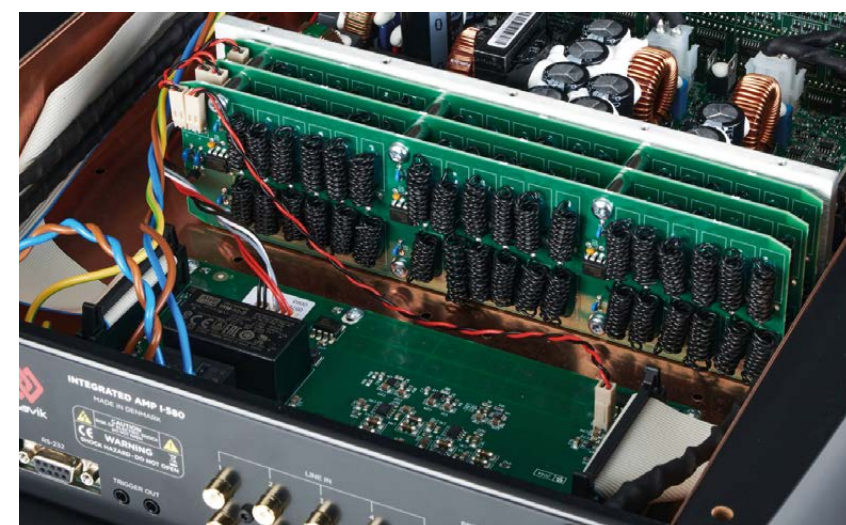
## AAVIK I-580 – the differences to the smaller models

If you want to know more about the special features of the Aavik amplifiers - especially about the mysterious Tesla coils and other measures to keep the signal clean - I recommend the review of the [I-180/I-280](#) once again. Let's limit ourselves here to the deviations of the top model I-580.

As mentioned above, in terms of circuitry, there are only a few differences. Mainly, the I-580 is characterized by a significantly larger number of so-called Tesla coils, which are installed in dif-

ferent variants throughout the device and have the main purpose of keeping any electromagnetic interference away from the signal path.

Tesla coils are available in the form of hand-wound „Active Tesla“ wire coils on three extra circuit boards (108 pieces), in square form as conductor paths on the signal boards (Active Square Tesla Coils: 240 pieces), as well as wound around the internal connection cables to suppress the antenna effect (Anti Aerial Resonance Coils: 4 pieces). At this point, we would like to point out that the name „Tesla Coil“ is merely a reminiscence of the great inventor and has nothing to do with his Tesla transformer coils. Furthermore, the I-580 makes use of eleven special dither circuits.



The top model of the series has an internal chassis made of copper and has a very large number of a wide variety of Tesla coils  
(Photo: Aavik).

The core of the actual circuitry, and thus values such as the abundant output power (2 x 300W into 8 ohms, 2 x 600W 4 ohms), is identical to its smaller sibling models. In addition, says development chief Michael Børresen, the I-580 has better op-amps and iron-free high-frequency filters built into the power supply.

Another distinguishing feature is the internal copper „sub-chassis“ inside the I-580, but it is deliberately not an all-around Faraday cage.

The purpose of the internal copper chassis is to keep electromagnetic interference away from the circuit. To do this, it must not be a cage, because that would reflect back the electromagnetic radiation produced by its own circuit. In addition, Børresen explains, the MOSFETs run cooler thanks to the copper's lower inductance.



(Photo: F. Borowski)

The optional Darkz device feet - shown here in the titanium version under the DAC - are used for „mechanical grounding“ and are surprisingly effective. The amplifier (above) is separated from the DAC here only by titanium balls. These lie in the recesses of the adapter pieces and ensure a stable and perfectly aligned stack



Three titanium balls per tier are also embedded between the three layers of Darkz



The Ansuz Darkz Titanium device feet (800 euro/pc.) with titanium balls, which can be purchased separately. The balls are placed in the round recesses to connect with the „ball groove“ on the bottom of the Aavik appliance feet.





The I-580's titanium crosspiece embedded in the lid provides structural reinforcement - and looks good (Photo: F. Borowski).

The immediately visible departure of the I-580 from its smaller brethren is the X-shaped titanium bracing in the case lid, which is presumably based on the design of [Ansuz's in-house titanium rack](#). In addition, the unit feet and the end caps at the corners, which cover the cabinet screw connection and act as adapters for the Aavik Darkz system, are made of titanium instead of aluminum on the 580.

The black lacquered outer casing of the top model is also made of NBCM - Natural Based Composite Material. So no aluminum milled from the solid, but CNC-milled composite material, which is light, stable, low-resonance, hand-friendly and also more sustainable.

I won't mince words here: The additional engineering in the I-580 can hardly justify the enormous premium over the I-280 - simply a

doubling of the price. This decision is probably simply due to the fact that Audio Group Denmark's products are aimed purely strategically at a particularly solvent and less price-critical clientele, which is mainly found in Asia and overseas.

If it works, it has considerable advantages for the group of companies. For example, good money is earned with low unit numbers (and correspondingly lower expenditure) and at the same time a high level of exclusivity is built up for the brand, which only makes it all the more attractive to wealthy circles. On the other hand, many potential and really hi-fi enthusiastic, but normal earning customers unfortunately fall through the cracks. Another criterion for pricing is, of course, whether a component can compete sonically with others in its price range. And the Aavik I-580 succeeds without question.

## The Aavik I-580 in practice

The I-580 is not a miracle of equipment. But all of its features are very practical and should easily suffice for most applications. Even for me as a tester with frequently changing players, the range of functions is completely sufficient.

Functions, connections, operation: everything is identical to its smaller siblings. The I-580 has only RCA inputs and outputs, no XLR. 5x Line-IN, 1x Pre-OUT. That's it. The solid speaker terminals are located far out to the sides of the housing, which makes the connection easier and avoids conflicts of the LS cables with the interconnects.

Trigger connections can be used to switch other components, such as the Aavik D-280 DAC used in the test, on and off together with the amplifier. Operation is via three switches and the large volume control on the front, or via the included Apple remote control. A system remote in a matching design is under develop-



The connections of the I-580 correspond to those of the I-280 shown here: 5x line in, 1x pre out, plus speaker terminals, which were sensibly placed quite far out (Photo: F. Borowski).

ment, as the Apple Remotes (one is included with each unit in the series) can only control one Aavik unit at a time.

I had already sufficiently appreciated the red LED matrix display in the review of the smaller models. I appreciate its perfect readability, the practical dimming levels and in general the „analog“ and not distracting touch of this display.



A close-up view of the red LED matrix display and the chrome-plated concave level control (Photo: F. Borowski).



The loudspeaker terminals are located far out and thus do not come into conflict with the interconnects (Photo: F. Borowski)





## TEST AAVIK I-580: „VERY GOOD”







## And the sound? Hammer! (Thor-like)

I have no idea how it works, but despite an almost identical output stage, the I-580 makes another comprehensible leap in bass over the I-280, which in turn effortlessly distances the I-180 in this point. All because of the significantly higher number of Tesla coils? Mr. Spock has the appropriate reply to that: Fascinating!

Tonally, as expected, virtually nothing changes with the I-580. Like its smaller brothers, it is a prime example of a highly transparent, dynamic representative of the solid-state species, subgenre switching amplifier. However, the foulness of more primitive Class-D circuits is completely foreign to it. The Aavik I-580 never sounds harsh or artificial. Even and especially at lower levels there is no flattening of the sound to complain about. On the contrary.

The I-580 owes its special talent to be able to play thrillingly even at low levels to a large extent to its unbelievable low-noise. The resulting extremely „black“ background provides the ideal canvas to let even the finest details appear in perfect contrast. Be it tiny background noises in classical or other live recordings, spatial effects or playful soundscapes in electronic music. Everything stands as freely and vividly between the speakers as is technically possible with today's stereo system.

This is certainly partly due to the ideal interaction with the Børresen 02 SSE speakers, which seem to enhance these qualities even



(Photo: F. Borowski)

more. Listening to music at low or moderate levels has never been as enjoyable for me as with this combo.

Because I was so euphoric about the I-580, the (rather skeptical) LowBeats editor-in-chief had a 580 sent to LowBeats headquarters in Munich at the same time, so that he could try it out for a few weeks and compare it with the amplifier references. Here's his experience:

„At first impression, the Aavik I-580 sounds rather unspectacular. But already on the se-

cond impression it draws attention with a highly impressive bass range. Even compared to the big SPL m1000 monoblocks, one had the impression with it that it could deliver more at any time. The basses themselves came raven black and immensely rich. In terms of power development, the I-580 reminds me of the large Devialet amplifiers, which have a similarly commanding grip on the bass range.

The outstanding characteristic of the big Aavik, however, is its „quietness“. None of the

With a footprint of just under 40.0 x 40.0 cm, the units in the new Aavik series are not tiny, but they are nowhere near as gigantic as some other amplifiers in this price and performance class

amps connected in the comparison - be it integrated amplifier or pre-power amp combination, be it tube or transistor - was blessed with such an almost stoic calmness. This is not to say that the Dane sounded even slightly dull or slow. It just lacks some of the nervousness of other components, though you only notice it when you put an amp like the Aavik I-580 next to it. It sounds as if it came with the very big power-filter set: extremely clean, wonderfully clear, with unusual spatial depth, but just not hyper-vivid.

Compared to the pre/power amp combinations from SPL (Director2 + m1000) and Cambridge Audio (Edge NQ + Edge M), the I-580 could definitely score points with this style of playing; both the Aavik and the two combinations had their supporters in the various listening rounds - that can definitely be seen as high praise considering the quality of these competitors. In the comparison with the [LowBeats](#) integrated amplifier reference, the [Monaco from Westend Audio](#), however, most of the sympathy points went to the Monaco. Not that the stately tube could compete with the almost infinite power reserves of the I-580. But the Munich noble amp played a bit looser and more subtle, but also more lively.

To be fair, I have to state that we did most of the comparisons on the impedance-critical Gauder RC-9 floorstander. On the Swabian noble speaker, the Monaco generally performs at its best. It may be that the I-580 reacts a bit more sensitively to the impedances of the RC-9. In combination with the Børresen speakers, however, as I've heard it described at trade shows and as colleague Borowski credibly describes it, the I-580 is a real revelation.“





## Ansuz accessories fanned out the sound spectrum even further

For the test in the Kiel LowBeats Dependence (northern Germany), the chain already described above was used. Over the course of several months, an Ansuz X-TC power strip, another Ansuz X2 power cable (one was already in place) and two Ansuz Sparkz TC2 Harmonizers to

plug into the free power strip sockets were added. The Børresen men are simply good at making the benefits of their (also very expensive) accessories palatable. So far, they have never promised too much.



The Mainz8 TC 8-way power strip (with Tesla coils) costs 1,500 euros. (Basic version without TC 1,000€.) The mains distributor could clearly stand out in sound from the iFi mains strip, which was also very successful

Sparkz Harmonizer from Ansuz. Here the 1,000 euro TC2 version with Tesla coils. The standard version without TC costs 400 euros.



(Photos: F. Borowski)



Because of the star-shaped grounding, the main component (usually the amplifier) should be connected to the marked socket.



The Ansuz power cord X2 is the entry-level model. Cost: 720 euros of the meter

Anyway, at this point I would like to briefly report that the Ansuz power distributor brought an unmistakable and clear positive difference compared to the iFi Audio PowerStation power strip used last time. Compared to other, in part even significantly more expensive power products that I could hear so far, even so much that I have to call the Ansuz Mainz8 X-TC with its 1,500 euros almost again as cheap.

The additionally used Sparkz TC2 (1,000 euro each), I cannot express this praise to the same

extent. Not that these would not develop an additional effect, but significantly cheaper harmonizers of similar function, such as the iFi Audio AC iPurifier provide almost as much, at least in my environment. In more heavily loaded (power) environments than mine, however, the effect might be more pronounced.

Back to the amplifier. Would still be the question of whether the I-580 justifies twice the price of the I-280. A difficult judgement. Again to the illustration the price structure of the three Aavik amplifiers after current price list:



## Price list Aavik

### I-180

6.000 Euro

### I-280

10.000 Euro  
(+ 40%)

### I-580

20.000 Euro  
(+ 50% to the I-280)

With the I-280, I would accept the additional costs to the entry-level model without batting an eye. Its sonic advantage is striking. With the I-580 to the 280, the sound leap is again effortlessly comprehensible, but not as big as between the 180 and 280.

Now, one could argue that the air gets thinner and thinner towards the top and the additional costs for the last few percentage points are usually all the more painful. This is also the case. However, I simply have to say that the I-280 has the superior price/performance ratio of the three. It is so to speak the sweet spot in the Aavik amplifier triumvirate. The I-580 will nevertheless remain with me as a workhorse for the time being, simply because it harmonizes so fantastically well with the Børresen 02 SSE and sets the bar.



The round corner pieces made of titanium look chic, serve as a cover for the housing screw connection and as a ball mount for stacking the devices in the series. (Photo: F. Borowski)

## Conclusion - top sound and efficiency in designer garb

The test of the smaller models had already proven that Michael Børresen's unusual amplifier concept with switching power amplifier and Tesla coils does not need to hide behind Class-A-bolides. It is absolutely amazing how the top model Aavik I-580 can top their sound with the described means.

What doesn't change with the I-580 is its just as outstanding practicality. Compared to the usual aluminum altars in this class, the Danish amp with NBCM housing is light, compact, visually more restrained, but offers plenty of power with-

out acting as a heating plant and straining the electricity bill unduly. Its low noise coupled with the incredibly sovereign and lively sound sets standards for the Class D principle. To me, this is what a forward-looking and also more sustainable amplifier concept looks like.

If you want the absolute best in high end, you have to dig deep into your pockets accordingly. The Aavik I-580 is a prime example. Happy the one who can afford it! If not: The I-280 is an excellent compromise.

## Technical data

AAVIK I-580	
Technical concept:	Integrated amplifier with Class D circuit
Power 8/4 Ohm:	2 x 300W / 2 x 600W
Inputs analog:	5 x high level (RCA)
Inputs digital:	none
Outputs:	1 x preamp output (RCA)
Dimensions (W x H x D):	384 x 102 x 400 mm (with connections)
Weight:	10,7 kilogram
Special features:	GAIN adjustment of the inputs

All technical data





## AAVIK I-580



**LowBeats®**  
**VERY GOOD**

**4,2**  
**RESULT**

## REVIEWS

SOUND



PRACTICE



PROCESSING



TOTAL



2021-08-06

The rating always refers  
to the respective price class.

## Pro & Contra:

- ⊕ Grandiose smooth, at the same time dynamic sound
- ⊕ Very high output power
- ⊕ Simple and practical operation
- ⊖ No XLR connectors, no coasters included

## Vertrieb:

Aavik Acoustics ApS  
Rebslagervej 4  
9000 Aalborg/DK  
[Aavik-Homepage](#)

## Preis:

(Manufacturer-  
Recommendation)  
**Aavik I-580:**  
**20.000 Euro**

## Teammates and counterparts:

[Test: Exogal Comet and Ion PowerDAC](#)

[Test Wilson Audio TuneTot - the ultimate high-end monitor](#)

[The integrated amplifier double test: Aavik I-180 vs Aavik I-280](#)

[Test Standbox Børresen 02 SSE: more silver, more music?](#)

## More from Aavik/Boressen:

[Test Børresen 01: Compact loudspeaker from another star](#)

[Test: Ansuz Acoustics LAN PowerSwitch X-TC: superior network streaming](#)

## Author: Frank Borowski:

LowBeat's expert for desktop HiFi and High End is also very familiar with the finesses of high-quality streaming transmission. In addition, the passionate high-end-er is always curious in the accessories area.

