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Weiss Helios DAC | REVIEW

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The Weiss Helios [DAC](#) reminds me of what people forget about Swiss pocket knives. The common association is, of course, with the ubiquitous “Swiss Army Knife” manufactured by Victorinox in that iconic red color. The name comes apocryphally from American soldiers’ inability to pronounce the term *Offiziersmesser* – “Officer’s Knife in German” – during World War II.

What is often overlooked is the quality of blades made in Switzerland. There is versatility in the combination of pocket tools, but the reason Swiss-made blades were desirable in the first place is the precision and quality, and also longevity. Equally demonstrated by their hundreds year long history with Horology, the Swiss don’t generally do things superficially.

The same is true of Daniel Weiss, who began working on digital audio and converters in 1979 at Studer – yes that Studer, known for their tape machines – years before the average consumer had any inkling that the term digital might refer to something other than small appendages. By my count that means 2024 heralds forty-five years spent working on digital audio. I’m fairly certain that’s longer than most other DAC designers have been alive.

In the ’80s and ’90s, Weiss struck out on his own and released a slew of products which have since become legendary in the pro audio world, particularly with high-end mastering applications. His converters and digital signal processors, such as the EQ1 equalizer and DS1, were perhaps the first truly great sounding digital devices. Even today you’ll see the best mastering studios awash with Weiss gear, performing conversion and DSP at the highest levels.

I’ve had the pleasure of using many of these devices during my time in pro audio, and the performance has always been spectacular. Weiss devices simply make it easier to get work done. Moving to the home hi-fi realm, I have always appreciated the DAC502/1 and DAC202/4 devices, which bring that iconic Weiss sound to the consumer user. Clean, clear and accurate, they put many other devices at their price points to shame.



Inside the Weiss Helios DAC

With the \$21,995 Helios, Weiss aims even higher. Though the front panel DNA is the same as the DAC502, the D/A section is different, and now an 8-channel design and an upgraded analog output stage based on the famous Weiss OP2-BP op-amps is present alongside a fully aluminum chassis. Build quality is impeccable and feels luxurious and high-end, though understated. I

rather like the form factor and look of the Weiss Helios, and visually it should fit easily into any number of systems.

Moving on to the important parts, we have the featureset: a fully functional UPnP or Roon streamer, also controllable with the JPLAY app, and a web interface and remote. Most often I found myself using either the remote or the front panel touchscreen and knob however – in this case, because it made it easy to adjust the DSP functionality.

As far as I am aware the DSP features of the Weiss DAC502 and Helios are unique in home hi-fi, and certainly no company as well known as Weiss is implementing plugin-style DSP in a product targeted towards the home environment. The DSP format will be well familiar to professional engineers as the bread and butter plugins we use to mix and master records, ranging from equalizers to compressors and even to more exotic functions.

The Weiss Helios includes an impressive swath of tools, ranging from the aforementioned equalizer, which is split into creative tone control style, corrective room and headphone EQ functions, dynamic volume normalization, de-esser, crosstalk cancellation, vinyl emulation, equal loudness curves and crossfeed for headphones.



Ok, that's a lot and probably unfamiliar to the average audiophile, but let's dig into what each feature does. The equalization functions are likely somewhat familiar to the average audiophile, with the creative function being the most obvious – pick frequencies, and boost or cut according to taste. The room equalizer works similarly with more bands and is clearly designed to target narrower resonances for more corrective work. The headphone EQ curves are all automatic and appear to only cover some light corrective EQ for compatible Audeze headphone models.

To go along with these headphone curves there is a cross-feed implementation which is quite simply the best sounding cross-feed I've heard, bar none. I almost want to ask Daniel Weiss for

this as a standalone plugin for pro audio work because the implementation is just so clean and clear of any of the artifacts one usually hears with cross-feed like this. Truly superb.

The equalizers themselves are pretty much invisible in tone, with no detrimental effects on the sound as far as I could tell. They will take an experienced hand or use of the web app as a curve visualizer is not provided on the device's screen and can only be viewed on the web app. In general I'd actually encourage use of the app as the interface is quite nice and eminently more user friendly than the knob and touchscreen experience.

Moving on to the DSP functions of the Weiss Helios that may be less familiar to the average audiophile, we have the De-esser. These function in a variety of ways, sometimes spectral, tonal or even working on transient information at times, and while I'm not familiar with what particular algorithm Weiss is using here, it would be safe to assume it has some relationship with their famous DS1 De-essing unit. De-essing essentially is removing the sibilant "ess" sounds from tracks, most often lead vocals, though occasionally on other particularly harsh, close-mic'd instruments too.



This leads me to an interesting thought experiment – audiophiles will often modulate the transient character of a system through careful application of smooth equipment, especially tubes, that can strategically remove harshness while retaining clarity. The Weiss Helios instead puts this control directly into your hands, and even allows you to control how much you want.

The Weiss Helios begs the question – where do we fix problems in playback? For the hardcore purist, nothing less than the simplest signal chain will do, and tone controls and other forms of processing are *verboten*. On the other hand, recordings are often imperfect creatures, and polishing a favorite musical track or system for an improved experience is not something I am above. Weiss seems to intuitively know this, and has provided saveable presets for the DSP

functions of the unit, and it's a breeze to switch between them with the remote. I suspect those with a disposition towards this kind of tweaking will adore the Weiss Helios for this reason.

This brings me to my favorite DSP feature, one that I almost always leave on when playing the Weiss Helios. Yes, I unashamedly use the vinyl emulation and it is exceptional. This is another one I wish Weiss would release as a standalone plugin because it's simply that good. While I won't claim it makes things sound exactly like your favorite record, the 0dB calibration level kisses the signal with a liquidity and texture that I find totally addictive. It is not wildly colored, but the subtle profile it adds to the music gives the impression of added layers, smoother transients and tonal warmth that I personally look for in great high-end analog gear. A note about this: it does appear to add some latency, and I generally turn it off when I'm using my system with visual media like movies or video games.

The rest of the DSP features can be roughly grouped into volume and dynamic control features, and headphone-related processing. The headphone EQ curves appear to be more or less the same as the Audeze curves built into Roon or some of the co-branded Audeze apps. These all work well in their respective use cases, and the Helios sounds excellent from the headphone amp, just as good if not even more refined than the DAC502.

Here we come to one of the more interesting and creative features, the crosstalk cancellation. Why, you might wonder would one want to cancel crosstalk – the mixing between two channels that creates the phantom stereo image we all know and love? Well, in this case the feature is intended for a somewhat specific use case – with the speakers placed relatively close and a somewhat near-field listening position. Program material should be either binaural or dummy-head recordings or recordings with good accurate stereo information in particularly reverberant rooms: I found choir or distantly mic'd orchestral recordings excelled here.

The effect once you have the setup correct can be goosebump-inducing, combining some of the immediacy of headphones with a much greater sense of presence and depth than typical for stereo playback. Even with speakers right next to each other, there is considerable perceptual width, and bass actually tends to tighten up a little as well. In practice not everyone's system will allow for this re-positioning, but if you can reposition from the more typical sixty-degree listening angle to about twenty degrees or less, this is well worth a try.

I suspect many audiophiles may find this particular function a bit exotic, but for those who have deep classical catalogues or extensive libraries binaural or reverberant program material, this offers a method of listening that I found quite compelling. I definitely recommend giving it a try at least to open your mind to the creative possibilities the DSP in the Helios provides.

The loudness control functioned much as advertised – turn the music up or down and something resembling an equal-loudness curve kicks in. Personally, I find this quite useful as I listen at very low levels in the 68dB to 70dB range a lot of the time, and the correction to treble and bass levels makes for an improved balance when listening particularly quietly. I'm not sure how familiar many audiophiles will be with this feature, but it helps immensely with the urge to crank the volume knob to get the perception of more low level detail. Less of the room can be activated while retaining a sense of the full bandwidth of the program material. I wish more preamps and DACs would include this kind of feature to maintain tonal balance across listening levels.

The Weiss Helios' other volume control feature is essentially volume normalization, where tracks are adjusted to roughly the same loudness regardless of the original program material's loudness. This can be particularly useful with classical music when playing in the background, or otherwise using the stereo in the background. While volume normalization on streaming services has been much maligned, this is another convenience function I do find quite nice because it helps a hi-fi system integrate into a living room use case much more seamlessly.



Sound

Wipe the sweat away and take a drink of water because we've only just covered the features – now comes the part you're likely most curious about. How does the Weiss Helios actually sound as a converter? In a word, remarkable.

I have had many encounters with Weiss pro converters as well as the DAC502 over the years. The DAC502 captures a lot of what's charming about the pro series converters, a kind of seamlessness and absence of any bothersome texture or glare. Simultaneously the sound is accurate and clear, with a balance so precise it can almost seem boring at first until you realize just how much other converters have been lying to you for all these years.

If the DAC502 has any tone, it shows itself as a slightly dry warmth in the upper midrange, most audible in really clean music like chamber classical or any recording where a self-balancing acoustic ensemble has been closely mic'd. The Weiss Helios dispenses with this coloration and takes things to an altogether higher level, and one that is even more in-line with what I remember of working with a Weiss DAC1.

There is almost no detectable texture to the sound with the Weiss Helios, something I have heard from almost no other DAC. Perhaps the only giveaway that a DAC is indeed in the system

is a sort of liquidity and coherence from top to bottom that few converters provide. It's as if inserting this converter makes the treble, bass and midrange all sound more texturally consistent. Even this trait does not particularly draw attention to itself however, and the Helios somehow manages to be spectacularly detail with large, focused images that are never wider than reality as some DACs portray. Yes there is exceptional accuracy, but its accuracy done so smoothly and listenably that music still speaks to me emotionally.

I did notice that even trimmed down to the consumer standard 4V XLR output the Weiss Helios seems to have quite a bit more punch and dynamics in the bass and treble than a lot of hi-fi DACs, which could be related to a much greater than usual Voltage headroom – the Helios is capable of a mighty 16V output via XLR – or if the DAC is merely revealing more in those frequency ranges, but the added dynamic contrast sounded fantastic on every system I inserted it into.

As I've mentioned, I found the vinyl emulation added a sweet warm texture I really enjoyed, though it doesn't change the basic nature of the Weiss Helios which is coherent, clear and open. Even running every DSP feature at the same time did not seem to negatively impact the sound as far as I could tell – there was still plenty of plankton, dynamics and low-level information available at all listening levels. I did notice though that you can easily turn up the DSP features to the level where you get audible crunch on some recordings, so use these features with a judicious hand. I never felt the need to go beyond the 0dB level on most of them outside of satisfying my curiosity.

As an absolute vault of plenty with regards to features, the Weiss Helios is almost more like a digital control center than a mere converter. Streamer, DAC, preamp, headamp, and DSP box all in one is a category where I'm seeing growth in hi-fi, and the Helios is perhaps the most fully featured box in that category when it comes to ways to tweak the sound.



Weiss Helios Conclusions

When a pro audio company moves into hi-fi there are many questions about how much control one should have over the listening experience, or how technical the featureset should be. I firmly believe more DACs should have adjustable output, and more preamps should have equal loudness curves. I think the Weiss Helios also reminds me of something important – hi-fi should be fun. I had fun playing with the DSP on the Helios, and it even made me want some of the features as standalone plugins for my pro audio work.

It's rare to find gear that both sounds great and also scratches the itch for tweakability – too frequently audiophiles buy a new piece of gear to change the sound. Weiss instead opted to put more of that control into our hands, and I think this greatly increases the longevity and ownership prospects of the Helios. This is a converter that will never be a weak point in any system.



Additionally, while many purist audiophiles may find all the DSP flexibility objectionable, I love that Daniel Weiss is experimenting with ways to give the listener more control and flexibility over the listening experience – plus he's offering it in a DAC which is already a top-in-class converter. If the Helios were the same price, with a fixed output it would still be a better DAC than many of the options at this price. My only caveat would be that those who are seeking a particularly flavorful or additive listening experience might look elsewhere. Even with the vinyl emulation this is still largely a converter of the clean, clear and invisible variety. That said, the Weiss Helios is amongst the best digital converters I've heard, and it deserves my highest recommendation for those looking for a high-end statement DAC at any price. Must audition.