

## Weiss Engineering Helios DAC Reviewed



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**Price: \$21,995.00**

With over four decades in the art and science of audio, Daniel Weiss started his audio tenure in 1979 with pioneering company Studer, then founded his own company making pro series equipment and moved into home audio in 2000. I first became interested in this Swiss brand back in about 2010 when I was impressed by a Weiss DAC at an audio show. And while my general interest in Weiss components has not wavered, it is with the Weiss Engineering Helios DAC that I finally had the opportunity to try one of their products in my own audio system. In fact, when the offer was made to do this review, a resounding yes was my immediate reply.



It has been said there is a Swiss sound common to products with names like **CH Precision**, **Solution**, and **darTZeel**, plus the other stalwart Scandinavian audio companies. When I first installed and powered up the Helios DAC, my immediate thought is how studio-like (visceral, revealing and perhaps a little aggressive as compared to others in the class, but by no means in a bad way) the sonics sounded. Was this, I wondered, Weiss' representation of the famed Swiss audiophile vibe? What I did not know, what I really could not have known so early, is the Weiss Helios DAC has the amazing ability to make digital audio sound spectacular. In fact, the Helios has a lot of tricks up its sleeve and it was through an exploration of these options that I discovered what the Swiss sound really sounds like on my audio system. In a word ... incredible. As I have reviewed (and own/owned) some of the best DACs in this lofty class, let's find where this gorgeous component belongs ...

### What Makes the Weiss Helios DAC Special?

- **Weiss uses the ESS Sabre ES9038PRO HyperStream II D/A converter chip for conversion of digital signals to analog.** PCM data up to 384kHz and native DSD x128 are fully supported.
- **The Weiss Helios DAC is Roon ready and JPLAY certified**, which is how most of the DACs in this class take their audiophile inputs. It is also good to go on audiophile music management software, JRiver.
- **Standard settings include master volume, input selections, basic setup features and, interestingly, a global gain setting.** These settings range from 0dB to minus 28dB, and serve to ameliorate the master output from the DAC to a preamp or amp. I started at 0dB, but in time found a setting of minus 4dB better suited my listening preferences.
- **Digital Signal Processing (DSP) is at the heart of the operation of the Weiss Helios DAC.** In fact, DSP, in the form of plug-in settings on the web interface, is intertwined into almost all basic operations. These plug-in settings are as follows, and in the order that they appear on the web interface:
  - **A De Esser setting serves to remove sibilance from "S" sounds.** Activating this feature assists in removing the sometimes harsh, bright sibilance from human voices. It works well when the listener would prefer "S" sounds not sound so "ssss"-like.
  - **Vinyl Emulation is a very interesting feature, which serves to replicate the sound of an LP.** I found this feature useful when a listening profile representing a softer, perhaps warmer presentation, rather than an aggressive, more engaged sound, was warranted.
  - **A Multi-Band Parametric Equalizer allows variable adjustment of three bands with settings for low and high shelf, low and high cut, peak and bypass.** This plug-in allows crafting a personalized sound up to about 21kHz.
  - **A Room EQ plug in serves as a five-band equalization network, which has the goal of ameliorating room modes for improved bass reproduction.**
  - **A Loudness Control is intended to provide a slight boost to the signal at low listening levels.** I played several tracks at lower than my normal levels, say, 60dB, and there was an immediate sonic improvement with the Loudness Control activated. For listening levels of about 80dB or more, this feature is not necessary.
  - **A feature called Dynamics provides a level-matched constant volume of all played tracks into one consistent amplitude.** This eliminates altering the preamplifier due to varying recording levels of different songs.
  - **Lastly, Crosstalk Canceling (XTC) is probably more of a pro audio feature, but it is included in the Weiss Helios DAC.** Crosstalk is largely responsible for the stereo image that a well-designed and set up audio system will produce. XTC essentially ensures the left speaker is

only heard by the left ear and the right speaker only heard by the right ear. The goal is to make the recording sound as if the listener was in the recording studio. If the listener is using a nearfield, closely-spaced speaker setup, XTC may be a very welcome feature.

- **All of the plug-in settings may be set to bypass, and the Weiss Helios DAC will present a predetermined sonic presentation.**
- **Headphones are fully supported on the Weiss Helios DAC.** The plug-in settings also exist for headphones, but are slightly different than those designed for speakers.
- Inputs include AES/EBU via XLR, S/PDIF via RCA or Toslink, USB, UPnP/DLNA over Ethernet..
- Outputs are balanced or XLR connections, and unbalanced or RCA.
- **Connect an Ethernet cable from the DAC to a router or modem, and a Weiss Helios may be controlled via a web browser on a computer, tablet or phone.** This makes using all the plug-in functions included in the DAC's operation easily accessible. Product and software upgrades may also be performed through the web interface.
- **The Weiss Helios DAC is capable of a direct connection to an amplifier, or as a pass-through design when used strictly as a DAC.** A control on the unit itself, the included remote, and the web interface provide volume attenuation.
- **Control of the Weiss Helios DAC is by three principal methods.** One is the touchscreen and round rotary knob on the front of the unit. Second is by the included remote. Third, and my preferred method, is by the web browser on a handheld device.

## Why Should You Care About the Weiss Helios DAC?

If the long heritage of professional audio equipment Weiss Engineering has secured is not enough, then the remarkable array of features and pro-style customization of the sonics this DAC may provide should be. Finding a DAC with all the features, build quality, and customization at this price point is not an easy task. While there are certainly DACs with similar options, almost all would be at a price significantly north of \$21,995. Any user in search of a DAC with the capability of providing a wide range of customizable sonic presentations, most of which are professional studio-level, should be interested in the Weiss Helios DAC.



The \$21,995 Weiss Helios DAC is a slick looking and even better sounding audiophile DAC with deep pro audio roots.

## Some Things You May Not Like About the Weiss Helios DAC ...

- **I would love to see a larger display screen.** Then again, I always like a larger display on my AV gear. My listening position is just over 20 feet from my audio rack, so small displays are typically hard for me to see. Of course, using the Helios web interface on my iPad made things very easy on the eyes.

- Conventional DACs, like my Bricasti M21 Platinum Edition, have multiple DAC chips and filter settings. These also allow sonic customization and are very simple to use. With the Weiss Helios DAC, enacting sonic customization is not as straightforward.
- **There is no conventional front-mounted headphone jack.** Direct connection of a headphone is via an adaptor connected to either the XLR or RCA output on the rear of the unit and selecting Headphone on the display, remote, or the web interface.

## Listening With the Weiss Helios DAC ...

Right out of the box and connected to my system, I noticed a visceral, almost aggressive sonic presentation. To be clear, I like this type of sound, as opposed to a softer, more laid-back or relaxed type of sound, which appeals to some other audiophiles. This may not be welcomed by all, however. As is usually the case, I quickly became accustomed to this sound and grew to enjoy it immensely. Additionally, using the various DSP Plug-In features, as I eventually did, gave me a presentation that satisfied my sonically aggressive inclinations, without making the sound too harsh, too forward or, conversely, overly laid-back.

As I listened, it was also immediately apparent the Weiss Helios DAC does a remarkable job of sussing out very high levels of detail. I'm not sure I have ever heard a DAC in my system portraying as much detail as does the Helios. Transients, for instance, seemed to come to life as possibly never before.

**I also noticed some of the best bass response I've ever heard on my system.** In general, low frequencies were tight, very controlled and had little to nothing in the way of rumble or any room boom. And the Room EQ even enhances the bass response by taking room modes into consideration.

My system naturally has very specific image placement on the soundstage. Instruments are very focused. With the Weiss Helios DAC, this specific placement of instruments on the soundstage was noticeably improved. Because imaging is partly created by reflections, it is not uncommon to have instruments presented on a wall in a listening room. As with my **Bricasti M21 Platinum Edition**, with the Helios DAC, I heard image placement in free space, and laterally all across the room. And the placement of instruments made sense. In other words, depending on the recording, the principal singer or performer imaged in front of the soundstage (yet behind the speakers). Pianos, guitars and similar instruments imaged just behind the principal performer. Bass and drums were presented at the furthest point from the listening position. This is consistent with what I would imagine the setup would typically be on a live stage.

My one drawback was the overall imaging width. I would like to see the image presentation fill the widest width of my listening room in the area of image development, that being 22 feet. It was not off by much, but could have been wider to be consistent with my reference Bricasti M21 Platinum Edition DAC. However, given the detail, bass management, clarity and highly specific image placement, the Weiss Helios DAC did an astonishing job in my audio system.

As for music, I decided to return to a couple of my reference songs, those I've played many times and know extremely well. On the **Daniel Powter track "Song 6" from his self-titled release**, this track has some very low bass and was a great test for low-frequency management provided by the Weiss Helios DAC. At the 45-second mark, and recurring throughout, using a FFT (Fast Fourier



Daniel Powter song "Song 6"

system. Not like a live presentation,, mind you, but exceptional in every way. As for the rest of the song it was exceptional.



"Defying Gravity" from the show Wicked

Transform) reading on my Audio Tools iPad app, a measurement of about 30 Hz was the result of a very low bass tone. This bass note is a harbinger of problems, including room modes, the dreaded bass suck-out (which I've experienced in the past) and a rolling, boomy LF presentation. With the Weiss Helios DAC, this very low bass note was as tight and natural-sounding as I have ever heard it on my

Another go-to favorite of mine is "**Defying Gravity**" from the original DECCA recording of the live Broadway musical Wicked. This song has it all, including two powerhouse vocalists in Kristin Chenoweth and Idina Menzel. As this is a live recording, the singers are moving around the stage and sometimes they speak in plain voices, in addition to their considerable singing talents.

This track also has both acoustic and amplified music and several swings of considerable dynamic range. With the Weiss Helios DAC, the imaging was superb. I could actually follow the principal vocalists as they moved around my audio room, much as if I were watching the performance live. I could clearly delineate between the spoken and sung words, regardless of the performer, and the music never got in the way of the vocals. This track is a challenge for many audio systems (especially from the 4:33 mark), due to its complexity and all it has going on at one time. With the Weiss Helios DAC, and on my system, it was flawless.

## Does the Weiss Helios DAC Have Any Resale Value?

I looked and discovered that it was quite difficult to find a Weiss Helios DAC for sale used. That's a very good thing, because Weiss has a very good reputation in the United States, even if its distribution in this country isn't as robust as other high-end digital audio companies.

This is an expensive digital audiophile component, thus, unlike a Schiit DAC, it has room to fall in terms of value, but the performance, upgradability and scarcity all work in your favor as a Weiss Helios owner. Five years ago, I was more cautious with big money investments in digital audio (not that I didn't make them myself), but today, your investment is a lot safer.

## What Is the Competition for the Weiss Helios DAC?

Based in California, Berkeley Audio offers their flagship **Berkeley Audio Design Alpha DAC Reference Series 3**. Priced marginally higher than the Helios at \$28,000, the Reference Series 3 has garnered the praise and admiration of many, and has a dedicated following. It is claimed to have many of the same qualities as the Helios – those being great timbral awareness, high levels of clarity, excellent retrieval of detail, superb bass and highly specific image placement.

Known for their ring DAC design, digital stalwart **Digital Conversion Systems (dCS) has the dCS Bartók APEX Streaming DAC**. Priced at \$22,500 with the APEX option, this DAC is a very high performer. It has scaled-down technology used in the Vivaldi series of components, garnering a \$150,000-plus price point. The Bartók includes DSD capabilities, multiple filter options and network streaming.

I was positively excited to compare the Weiss Helios DAC to my current reference, the **Bricasti M21 Platinum Edition DAC**. In my review of this DAC, I found the retrieval of detail exceptional. Add in the resolution, clarity and superb bass response, I found this DAC to be an overachiever and, with a \$19,000 price tag, the Bricasti M21 Platinum Edition competed with and actually outperformed other products in both similar and higher price classes.

Bricasti offers three DAC chips: a Ladder DAC, a Sigma Delta DAC, and a custom, proprietary DSD DAC chip. There are two basic filters, a minimum phase, and a linear phase. What is important to understand is how the M21 has the capability to present a more aggressive sound, utilizing the Ladder DAC and the Linear filter, or a softer, more relaxed sound with the Sigma Delta DAC and the minimum phase filter. In this, the Bricasti M21 accomplishes much of what the Weiss Helios DAC can do with its wide array of DSD setting alterations. While the M21 had wider linear image presentation, the Weiss Helios excelled in retrieval of detail, excellent bass management and highly specific placement of images on the soundstage. Which do I prefer? Ah, that's a difficult question. Both have their specific attributes, both are similarly priced, and both are outstanding products. If I were to choose ease and simplicity, I'd go with the Bricasti M21. If I wanted to craft a sound as if I were in a studio, I'd pick the Weiss Helios.

## **Final Thoughts on the Weiss Helios DAC...**

Not many audio components leave me slack-jawed on the initial out-of-the-box listen. The Weiss Engineering Helios DAC accomplished this and more. Soon after making the initial connections to my music server and preamp, and allowing a brief learning curve for the slight aggressiveness, I sat in near disbelief at how incredible the sonics sounded with the Weiss Helios in the loop. I cannot remember a time when I heard this level of detail, this level of specific image placement, this level of bass management, and this level of overall musicality. In short, the Weiss Helios DAC raised the bar on my system's sonics, and not by a marginal amount.

Having the ability to customize the sound proved to be an interesting experiment. While the Vinyl Emulation filter rendered a more relaxed sound, the Multi-Band EQ and Room EQ for room modes provided significant control over my individual preferences. Using any of these features are easily accomplished via the web browser on a handheld device. And yes, the web browser offers a highly appreciated level of control.

It should also be noted all this customization does carry a learning curve. How many audiophiles who lack a recording studio pedigree actually understand what "Q" is as it relates to a multiband parametric equalization network? Probably not many. How many audiophiles understand how to effect sine wave frequency sweeps and record the time signatures of the various sounds and use those sweeps for improved bass response? Again, probably not many. These are both capable operations with the Weiss Helios DAC. The good news – all of the DSP features may be turned off if the modified sound is not what the listener wants. I see the Weiss Helios DAC as a professional, studio-level device, very aptly dressed in home audio clothes.

I cannot describe in plainer terms how much I enjoyed this DAC. For those so inclined, all of the professional, studio-like settings offer not only sonic improvement and customization, they actually provide an interesting sonic experiment and a glimpse, however narrow, into the world of pro audio. Those not technically inclined may simply set all the custom settings to Bypass.

For a mid- to upper-level audio system, and for anyone interested in the Swiss audio experience without the exhaustingly high cost of the more marquee, highly-popularized Scandinavian brands, the Weiss Helios DAC is a remarkable device worthy of a dedicated evaluation. With the Weiss Helios DAC in my system, I was able to render an improved sonic picture and craft a sound that suited my individual preferences. If a DAC at this price point is in any measurable way a consideration, I have no reservations whatsoever recommending the Weiss Engineering Helios DAC. This is just a fantastic audiophile DAC that takes on a big challenge and delivers sonically.