

Review of Rockna Wavelight by Terry London, follow-up by Mike Wright, 09/2020 on :

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ROCKNA AUDIO'S WAVELIGHT DAC/PRE

The vast majority of DACs in today's market are single-bit Sigma-Delta designs. A much smaller segment of this market uses a multi-bit R2R ladder, NOS 16-bit DAC chips, in their approach to bringing forth music from a digital format. Finally, the tiniest percentage of the market is based on multi-bit R2R discrete resistor arrays, not NOS (new old stock) integrated DAC chips. Highly respected companies such as MSB, S.A. Lab, and Denafrips use this digital topography. The subject of this review, the Rockna Audio Wavelight Pre/DAC, which retails for \$4750, goes a step beyond by blending the latest Xilinx 7-series FPGA (Field Programmable Gate Arrays) technology with their own custom discrete resistor array 25-bit R2R ladder DAC. As I have stated in my other DAC reviews, neither approach is necessarily superior to the other. Single-bit Sigma-Delta designs are known for their speed/dynamics and ultra-transparency/micro-details. The multi-bit R2R ladder designs are known for their beautiful timbres, full-bodied imaging, and smooth, almost analog presentation. Which do you like better; great solid-state or tube-based gear? It comes down to personal taste and matching the equipment in your system to get the best of all possible sonic worlds.

Rockna Audio, which is located in Romania, has been in business for nineteen years. Their reference DAC, the Wavedream (which starts at \$11,000 and has four different levels that increase in cost), is considered one of the "elite" DACs on the market today. However, to the best of my knowledge, no American professional reviews have been done on the Wavedream DAC or its newer, less expensive sibling, the Wavelight Pre/DAC. I was motivated to reach out to the Canadian/U.S. importer of Rockna Audio, Robert Neill, president of Worldwide Wholesales when I received numerous emails from readers who are fans of R2R DACs. They were very interested in knowing how much of the performance of the reference level Wavedream DAC had been brought down to Wavelight Pre/DAC. Rockna Audio's in-genius resident designer, Nicolae Jitaru, is exceptionally well known and respected in the digital designing arena. He has consulted and provided assistance to many of the highest regarded marquee manufacturers of digital gear on the present worldwide market.



The Rockna Audio Pre/DAC sent to me was clad in a robust and extremely well-built black aluminum chassis. It weighs 16 pounds while its dimensions are 17" W, 12" D, and 2" H. The front has a centered white dot-matrix array display that shows all relevant information and can be dimmed or shut off after the volume/filter setting/input-output has been setup. Three silver buttons on the right side of the faceplate control volume level, menu, and on/off positions. On the back of the Wavelight Pre/DAC are the numerous inputs (S/PDIF, AES/EBU, USB, OPTICAL, and 12S), outputs (RCA-XLR), and the IEC input. By going to Rockna Audio's website, you can easily download the remote-control app for your iPhone/iPad. The Wavelight Pre/DAC contains four custom digital filters: NOS (no oversampling), linear, minimum, and hybrid phase. Based on my past experience, I assumed that my favorite filter would be the NOS filter because the Wavelight Pre/DAC was an R2R NOS DAC design. However, after much experimentation, in my two systems, the minimum filter offered the most balanced performance of color, space, and flow at a much higher level than the other filters on all music genres, for my personal taste. Rockna Audio rightly calls the Wavelight a Pre/DAC because it contains a fully analog, not digital volume control. Compared to my solid-state reference Coda 07x solid-state preamplifier, Linear Tube Audio's tube-based reference preamplifier, and Aric Audio's new reference tube-based Motherlode II preamplifier (in for review), the volume control of the Wavelight were tremendously close to these excellent and expensive line stages in its performance. I could easily live with the Rockna Audio Wavelight Pre/DAC driving my system as a source and preamplifier and save thousands to use in other pieces of gear for my system. The highest level of performance from the Wavelight Pre/DAC was obtained by driving it with a balanced XLR cable, using the minimum filter setting, and using its balanced XLR outputs. As stated above, it performed superlatively with my preamps but lost nothing when it drove my system through its own volume control.

I am fortunate to live in a totally open design post and beam home. My large system resides in a heavily wooded space that is 30' wide, 30' deep and has a 30' high ceiling. The speakers, NSMT Model 100s, are 10' off the front wall and 8' off the side walls. The Model 100 speakers are the first box enclosure speakers that create the illusion of a soundstage. As a listener, you experience a wrap-around holographic immersion in the venue where the music was recorded. The only other speaker I have ever experienced this wonderful spatiality was from the German-made MBL Radialstrahler E 101 MK II speaker. This combination of the Model 100 speaker's spatial/soundstaging abilities and a giant damped acoustic space with walls far enough away eliminates early boundary reflections. Therefore, nothing reaches your ears except the first order sound waves from the speakers and brings forth soundstaging "magic."

About three months ago, I put into this system an AC power conditioner from Puritan Audio Laboratories PSM 156 Studio Master, (which also happens to be Clement's new reference AC conditioner - reviewed [here](#)). The Puritan opened up the soundstage and the "air" around individual instruments to even a higher and more delightful degree. Then my dear friend, Mike Kay, owner of the wonderful Audio Archon Salon, calls me up and with great passion, tells me that I absolutely must try the Puritan Audio Laboratories *Ground Master Earth Line Interference Eliminator* device (cost \$250) because of what it had done in his reference system. This entailed purchasing the Ground Master, an eight-foot copper-clad grounding rod, and fifty feet of six-gauge copper wire for around \$350. It was a relatively easy task to drive the grounding rod into the ground in my back yard, thread the copper wire into the first level listening room and attach it to the Ground Master, and finally wire it to the ground terminal on the PSM 156 Studio Master. This turned out to be "audio alchemy!" Now, the illusion of sitting immersed in the studio or on live recordings where you could easily/clearly hear the venue's subtle reflections not only produced three-dimensional imaging, but the hall's original ambiance became so "real" that I shook my head in disbelief. I shared the above information because when I inserted the Rockna Audio Wavelight Pre/DAC into the system, it rose to the occasion by creating three highly sought spatial factors: 1) proper layering of the players on the soundstage with pinpoint and precise location of their position in the band. 2) Resolved/detailed imaging without any etching, but still providing the "body" of the image with density and fullness. 3) Air/space around each instrument that added to the experience that the player was a three-dimensional figure playing in that acoustic space.



As I have stated numerous times in my different reviews, the most critical factor for me to relax, enjoy and connect with the music is how a piece of equipment renders the timbres/tonality/colors of instruments and voices. If in the tonality, there is a sense of "dryness" or a "paling" of the richness of color/timbres, it robs the music of the natural sweetness of acoustic instruments, be they strings, brass horns, or reed-based. One of the most exquisitely beautiful sounds in the history of jazz is the alto-saxophone playing of Paul Desmond.

Recently, Mosaic Records came out with a seven CD box set of previously unissued recordings of Paul and his band, *The Complete 1975 Toronto Recordings*. The recordings themselves are first-rate regarding clarity, macro-dynamics, and capturing the voluptuous tone of Mr. Desmond. The Rockna Audio Wavelight Pre/DAC was able to get the essence of Desmond's unique gorgeous timbres/colors of his playing, which he often referred to as the "sound of a dry martini." This solid-state R2R ladder adds a touch of what most audiophiles would call "tube magic," liquidity, including a density of color that captures live music's delicacy and beauty.



I wanted to evaluate how the Rockna Audio Wavelight Pre/DAC would deal with macro-dynamics and the overall PRAT of up-tempo music with massive crescendos and powerful percussion. I selected the 1961 Prestige recording of the Eddie "Lockjaw" Davis-Johnny Griffin Quintet's *Live at Minton's Playhouse In New York City*, which was recorded by the legendary sound engineer Rudy Van Gelder. This band rips with high tempo bebop and is propelled by the thunderous drumming of the great Ben Riley. The Wavelight Pre/DAC delivered the macro-dynamics with clarity and excellent transient speed. Riley's drum kit hits were clean from his cymbals to his bass drum and had a dynamic impact and a hard-hitting quality that drums provide in real life. With the information that I shared in the review regarding the performance of the Rockna Wavelight Pre/DAC: its reference level spatial qualities, a full, rich tonality with a hint of tube warmth, and excellent transient speed and macro-dynamics, the conclusion is that it is one of the best DACs at its price point compared to other top-notch DACs on the market. Then put in the equation that you could run your system without a preamplifier because the Wavelight Pre/DAC's analog volume control is competitive with the performance of highly regarded line stages. Its build quality is first-rate. Finally, because it uses FPGA technology, as Rockna Audio comes out with different generations/improvements, it allows you to download the latest new and improved performance Nicolae Jitaru will have developed in the future. If you are looking for a DAC in this price range, I highly recommend putting the Wavelight Pre/DAC on your audition list.

TERRY LONDON



Rockna Audio Wavelight Pre/DAC – Follow-up by Mike Wright

This dear friend is a follow-up to Terry London's excellent Rockna Audio Wavelight Pre/DAC review. I won't recreate the wheel here, going over items Terry touched upon so eloquently, but will instead offer thoughts on the Wavelight's performance. I was flattered when Terry asked me to do a follow-up to his review. He gets to spend time with what I consider a lot of "great finds." I wasted no time getting in touch with Robert Neill, President of Worldwide Wholesales in Canada. Worldwide Wholesales represents a range of world-class electronics that are known for sonic excellence and performance. Throughout this follow-up review process, Robert was accessible and very accommodating.

And So It Begins...

Let's get down to the nitty-gritty, shall we? The Wavelight is a very interesting DAC to listen to. Tonally, it has an organic warmth that is more natural sounding than what you would typically refer to as "tubey." Truthfully, the Wavelight is anything but tubey. Instead, its sound is refined, revealing, and realistic. The Wavelight is very extended, detailed, and airy in the highs and has rock-solid, deep bass, which speaks authoritatively when the music calls for it. There is no bass bloat or uncontrolled boominess at all. That "natural" sounding quality that the Wavelight possesses makes listening to music more enjoyable. Vocalists were portrayed as being unrestrained and with sustained harmonics. The performances appeared in my room on a well-delineated, layered, and transparent stage that extended beyond my speakers with good center fill and notably good depth. This quality makes listening to large-scale orchestral music an even more appreciable experience. The performers on the stage had their own three-dimensional space and air as the Wavelight helped to develop an image that I felt I could walk up to and around. The Wavelight's transient response was exceptional, though a little odd initially, as I kept checking to make sure that I was not missing anything. I heard this slightly warm tonal delivery without any edginess but presented increasing amounts of inner detail and lifelike, believable transient information. The Wavelight was allowing me to hear more musical information that I had somehow been missing, such as fingers traversing bass strings or the subtle sounds of drummers adroitly making use of every part of their setups.



For musical references, I used the following. For female vocals, I listened to quite a bit of Lizz Wright's *Dreaming Wide Awake* [Verve]. I love Ms. Wright's (no relation) warm, rich vocal tone and phrasing. Great vocalists, such as Cassandra Wilson, have a way of making a tune all their own, and Wright is no less accomplished. The one track I kept coming back to on this offering was "A Taste of Honey." Wright sings this selection with a bluesy, almost sad timbre, but the musicians added a lot to this track. Many vocalists surround themselves with musicians that are more than capable of taking over the recording. Still, this group of performers: guitarist Chris Bruce, bassist David Piltch, drummer Earl Harvin, and Glenn Patscha on keyboards, makes this album a dual treat to listen to. The Wavelight was instrumental in allowing me to hear Wright's vocal intonation and inflection.



Another vocal favorite I've been diggin' on of late is Chris Stapleton doing "Death Row" on his *From A Room: Volume 1* [Mercury Nashville] CD. I really do not listen to Country music very much though the supporting musicians, the guitarists, sometimes do catch my attention. This track just strikes that part of the brain that makes me sit down and take note of Mr. Stapleton singing about what he's going through, waiting for his impending fate. Not only the vocal power and emotion he sings with, but his guitar playing stands out to me as well. The Wavelight's dynamic range allows Mr. Stapleton's vocals, which go from calm to a loud wail, and Mr. J.T. Cure's melodious bass tone makes experiencing this performance all the more enjoyable.

Listening to classical music, a recording I really enjoyed playing through the Wavelight was *Johannes Brahms Symphony No.1, Chicago Symphony Orchestra with Gunter Wand* [RCA Legacy]. I have heard a couple of versions of this work where the opening was a little fast, but this one sounded just right. The Wavelight made this recording sound tonally, just right. There was a lot of detail from this recording with the ambiance, the hall sounds, and the sounds coming from the audience and the symphony members themselves. The orchestral timbres were pleasing to listen to.

A Few More Thoughts

The Wavelight is a very well made and solid DAC. As you would expect, there were no performance issues encountered, and I used it in more than a few system configurations with several different digital cable types. I did quite a bit of plugging in, unplugging, using a laptop computer, CD players, and a dedicated network renderer. Even switching shelves and platforms, the Wavelight withstood the rigors of the review period I put it through. The Wavelight is a top-of-the-line performer, not just sonically and operationally, but it's very flexible as well. The Wavelight has a slew of inputs, SPDIF, AES, USB, IS2, Optical, all designed to allow you to use the digital device of your liking. There are also the filter options to dial-in the sound you like the best. I found all these selections to be more nuanced and not really have a lot of effect on how the Wavelight sounds or performs but allows the listener to put more of his sonic taste on the music. My favorite Wavelight filters were the NOS (non-oversampling) and the Hybrid.

Another extensive feature of the Wavelight is that you can use it as a preamplifier. What is unique about this aspect of the Wavelight is that it utilizes an analog volume control instead of the customarily used, but usually not very good sounding, digital control. While I would not want to replace my VAC Renaissance preamp with the Wavelength, it did a genuinely lovely job of playing music with the other pieces in my system. For a temporary fix during a preamp absence for repair or upgrade, the Wavelight absolutely can step in and keep the show going. I have been blessed to have pieces inhouse for review to make some excellent comparisons. This review was no exception as I had the excellent sounding Bricasti M3 in temporary residence at the same time.

The M3 and the Wavelight are both excellent sounding DACs that operate near that top level. I am really hesitant to compare them because I enjoyed them both immensely, and both more than my Blue Circle BC510 NOS DAC reference. Comparing the two DACs, the M3 and the Wavelight are immensely musical, detailed, dynamic, and generally check all of the boxes for those attributes we like to judge music. The most significant difference being that the Wavelight is slightly warmer sounding. That tonality is there from the high frequencies to the low frequencies with the Wavelight having somewhat deeper bass, the M3's bass performance was only slightly tighter. Overall, in terms of what the Wavelight does musically for more than \$1200 less, straight up DAC versus DAC, I would choose the Wavelight. At the same time, the M3 has a network renderer built-in, and the Wavelight does not. I did not feel it would be fair to the Wavelight to compare it to the M3 while using the M3's network renderer, though in most cases, the Wavelight more than held its own. In the course of working my Bricasti M5 review and using it with the Wavelight, I can say that the Wavelight's performance is even more outstanding! Anyone looking for a DAC with network capabilities should give the Wavelight a listen. In this pairing, the Wavelight did not present quite as much of that tonal warmth, but instead, replaced it with more air, dimensionality, and a tad bit more of that you are there kind of realness.

I am told by Robert Neill that Rockna also has a stand-alone network renderer in the works. I would anticipate that the combination of their renderer and the Wavelight will sound exceptionally good. Neither I nor any of my friends have heard Rockna's top-of-the-line DAC, the Wavedream, but I have read that it is near the very top of the "state-of-the-art" of where DAC performance is. The Wavelight cannot be very far off from its elder sibling and gets a "Most Highly Recommended" designation from me. The Rockna Audio Wavelight will be one of those review pieces that will be missed.

Mike Wright

