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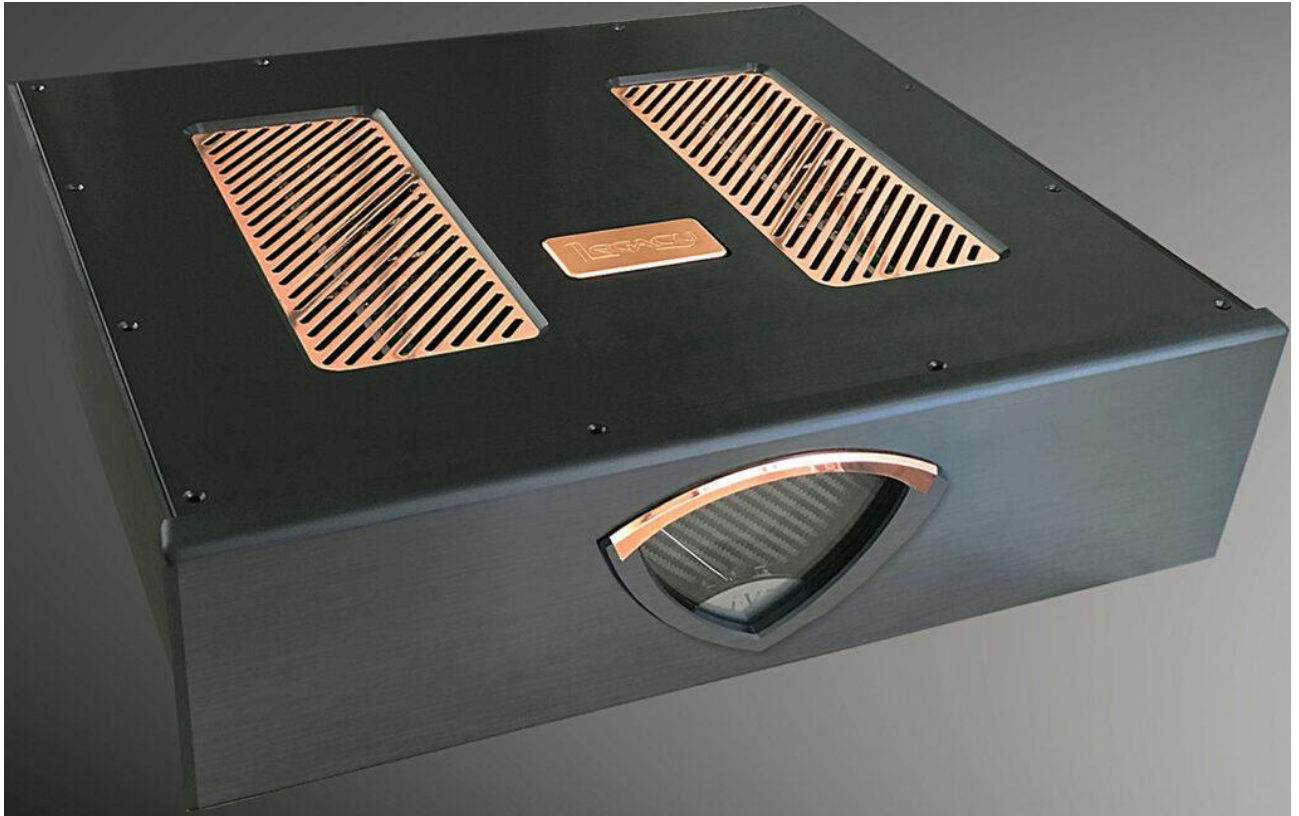
By: [Doug Schroeder](#) | May 2021

Slovenský preklad nižšie, pod originálom.

Legacy Audio i.V4 Ultra multi-channel amplifier Review

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When my sister and I were children, we had a self-propelled spinning ride in the backyard that I recall as the “Whirlybird,” and it still exists in the form of the Twirl-go-round. It was nearly as much fun as the barrel furniture chair in our family room that my sister and I would give each other rides on until we were dizzy. I think the spinning barrel ride at Six Flags amusement park, with the floor that dropped out, leaving the riders pinned to the wall, did me in for spinning rides. I still like going fast, but in a mostly straight line!

You want to get off the equipment merry-go-round? I want it to move faster! Major changes to the system at a frequency of approximately every three weeks is a comfortable pace for me. I keep things moving and always interesting! I cover much more ground in a typical review period than the average reviewer. I usually build no fewer than 12, and often as many as 15, discrete systems during a review. I do not conduct rushed reviews of only several weeks. In association with the amplifier under review I used *seven* different speakers: Legacy Audio Whisper DSW Clarity Edition (hybrid, quasi-line source), King’s Audio Kingsound King III (electrostatic), Ohm Walsh Model F (omnidirectional), Vapor Audio Joule White (dynamic), Salk Sound SS 9.5 (dynamic), PureAudioProject Trio15 Horn 1 (hybrid, horn), Aspen Acoustics Lagrange L5 MkII (hybrid dynamic, under review). For each of these speakers I made several discrete systems in order to optimize performance. I know how this amp sounds with a wide range of speakers.

I do not waste my life tweaking systems, I build systems. I have concluded that tweaks are for those who wish to have change but do not wish to spend money and/or are nearing the end of their system building phase and wish to collect media or enjoy the music on a static system. If you elect to use proper room treatment (panels, baffles, and bass traps, not baubles and trinkets), then the real changes come with components like the Legacy Audio i.V4 Ultra Amplifier. It is a waste to divert money toward tweaks when components such as this exist.

Anchoring

Let's say you do not wish to ride the equipment merry-go-round; you are smarter than that! You made your decisions a while back, and you have anchored your system in good quality gear that will always sound good, products that will hold their value. The operative word here is anchored, as in *unchanging*, unless you have tubes in your components, in which case your sound is assured to change for the worse over time as tubes degrade. As state-of-the-art sound, which due to technological advancement improves, the anchored system does not progress, but slides *backward* in relative sound quality.

There is a tendency for audiophiles ignorant of the radically huge performance spectrum of systems — and the powerful improvements conferred by new technology — to anchor to their rig's current performance. They are proud: "I got off the equipment merry-go-round," not realizing they have *stalled* while the standard for good sound continues to improve. Sometimes, there is no other option, but if one does not have clear impediments, I do not suggest intentionally fossilizing the rig.

Google "anchoring effect in psychology": The anchoring effect is a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered. Once an anchor is set, other judgments are made by adjusting away from that anchor, and there is a bias toward interpreting other information around the anchor.

Anchoring can be a problem for audiophiles. Case in point: despite class D amplifiers being invented in the 1950s and having undergone extensive improvement by audiophile interests, such as ICEpower, for more than 20 years, it is still seen by many as a studio technology, designed to cut corners and save space and weight, a cheaper alternative, harsh and "digital" sounding, and not ready for prime time. It's time you weighed anchor, because you are dragging. The term "anchors aweigh" means the anchors are cleared and the ship is ready for sailing. As of January 2021, these caveats are no longer applicable, at least to certain class D amps.

I attempt to actively resist anchoring to old perceptions about audio systems, as I do not find it to be advantageous, at least not in terms of pursuing the best sound. There are influencers, such as industry members with vested interests, who do not want the paradigm to change, as it could be damaging to their business. There are audiophiles who do not want the paradigm to change because it would adversely affect the resale value of their amplifier. There are some who anchored to an experience of hearing a class D amp from five or more years ago. The only way I have found to re-anchor is through new experiences; technical and anecdotal evidence often is not enough. Without a new experience, how does one find the impetus to shift their perception fundamentally?

In order to investigate for myself and avoid anchoring to an old paradigm, I revisit genres of gear to see what has been happening. It's pretty easy to tell whether a genre has advanced or is in stasis. I do comparisons between genres of amps to determine whether there has been progress. class D amplification has seen *major* progress, and the i.V4 Ultra is a great example.



Tour of features

Before we survey the topology of the i.V4 Ultra, a brief description of its features is in order. Legacy has created an amp with bling. It may not be a D'Agostino jewel, but it does capture some of that glamour. The black satin aluminum case with a Superman emblem-shaped meter topped with a peach-bronze highlight is a winner! Aesthetically I appreciate the absence of clutter on the face; the rocker On/Off switch is underneath the right front corner, lending an upscale feel to the amplifier. The coordinated bling of the bronze is carried through to the logo and vents atop, and even inside where one sees glimmers of the same color in each amp module. The meter indicates the voltage status of the amp, the large white needle resting over a blue LED when in operation, which turns yellow in standby. A small brass knob on the backside near the main Power switch controls positioning of the needle. The footers are high enough to allow fingers to slide under when moving it, something some other manufacturers have neglected to consider.

Legacy has held to their template for amp connection designations, preferring to label outputs by number. To hook up the speakers properly, one places cables according to the output's associated number, as described in the Owner's Manual. The unit is supplied with a stock 15A IEC, but aftermarket power cords are strongly recommended to enhance performance as the amp responds readily to them. Both RCA and XLR inputs are accepted on the i.V4 Ultra as well as the Wavelet. The posts are well marked, sturdy, and mercifully spaced far enough apart to accept bulkier spade terminations without fear of them coming into contact with each other. This design eschews a fuse in the circuit, as higher order safety features for the ICEedge modules protect against short circuit and thermal overload. When triggered, the amp is shut off, but depressing the SAFETY RESET button and cycling the power returns it to operation. A 12V trigger allows automatic turn On/Off.

Example of the changes to class D

Class D amplification is changing rapidly, with novel ideas being tried. Perusal of the landscape of class D development inevitably brings into view a newer technology, GaN (gallium nitride) FET transistors, which are said to offer better electron mobility than the standard MOSFET transistors. When I discussed the belief that GaN is thought of as the hottest new technology, Bill Dudleston, President and Founder of Legacy Audio, had the following to say:

GaN is a material that has been used in LEDs for more than two decades. It offers more potential than conventional Silicon material for semiconductors.

There is so much more to the execution of this design than merely output devices whether they be MOSFET, Si, or Gallium Nitride. It is carefully finessed for the audio realm with the ICEedge control platform. For example, there is an intended rise in the high frequency output just below 100kHz that eludes the HF sagging in the audible bandwidth that PWM designs exhibit.

There are independent power supplies for each of the output channels of the iV 4 Ultra. The differentiating forward filter is utilized for controlling a switching frequency of the system while the integrating forward filter is utilized for controlling the behavior of the amplifier system within an operating frequency band (e.g., audio band). The self-oscillating amplifier system exhibits improved performance in terms of open loop gain, reduced phase turn and improved robustness.

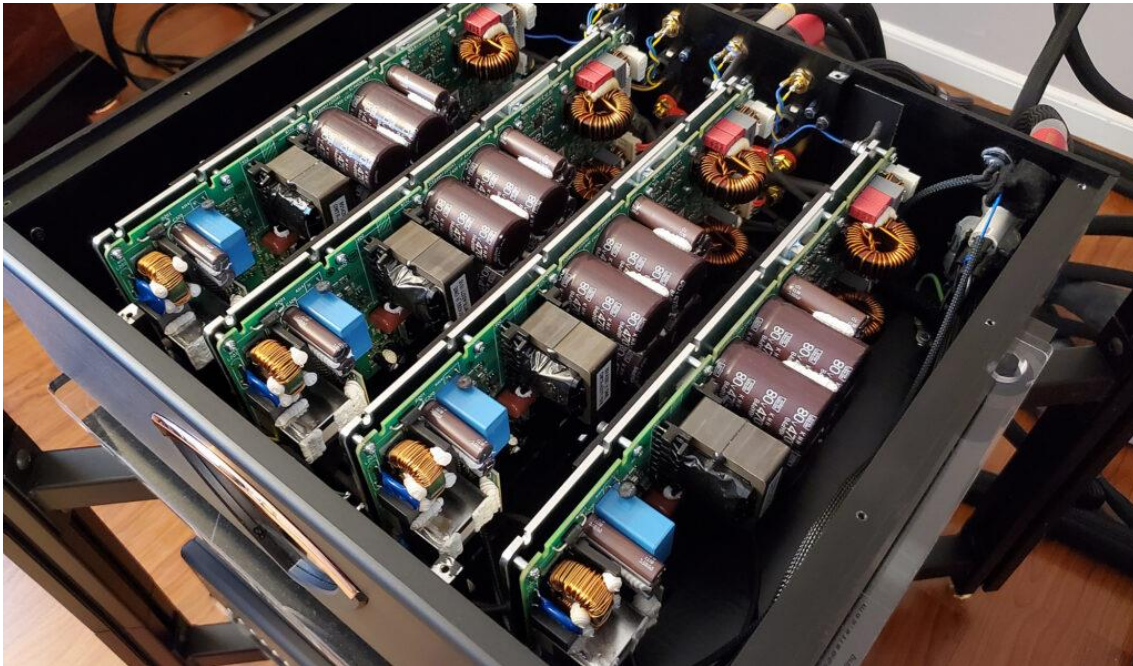


The situation seems akin to the temptation of audiophiles to draw universal conclusions about tube vs. solid state amplification. I get the excitement over GaN transistors (they are exciting), but their presence as parts, like tubes, do not ensure a holistically superior amplifier. Sometimes a novel technology is more a selling point than an actual advantage. It *may* be superior, but it *may not*. Only comparison can tell, which is something that overly enthusiastic audiophiles forget.

The advantage that ICEedge technology brings to class D (switching amps) is a patent on measuring and correcting dead time (time between switching on/off), which is particularly important in smoothing out slow signals (i.e., music). Bill states, "The present dead time compensation of each switching cycle was very key in the reduction of non-linearities and the neutral sonic character."

Which is more important for superior sound, a GaN chip, or ICEedge? I cannot tell you, for I don't have a GaN amp on hand, but the point is to not conclude *a priori* that a novel technology that is the hot topic supersedes other technological developments and/or design principles. Do such technological changes bring a better sound? You bet! Do not doubt that these are fundamentally different amps than the older class D you heard years ago.

It can be very difficult to convince someone by conversation alone that a fundamental shift has occurred in a class of amps. Is my writing an act of futility? Likely, in many cases the answer is yes, because all those who remain skeptical, who resist, will most likely not re-anchor. But those who are not so jaded will try, will weigh anchor, sail into a blissfully new experience, and re-anchor their perception of class D at a new vista. I suspect that our cynical readers think I'm selling here, fluffing the facts, overstating the case. It's a matter of belief, and you have to decide if I am trustworthy. You either distrust and stagnate, or you mentally weigh anchor and come along!



Pending sea change!

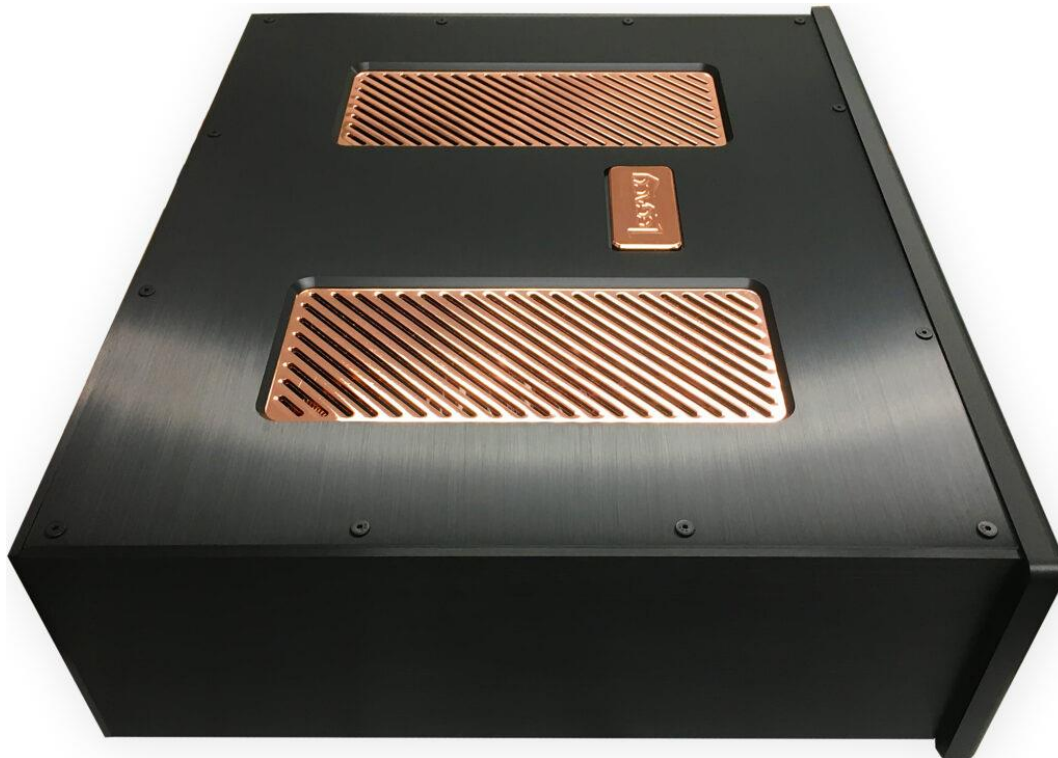
With the advent of the latest class D amplifiers a seemingly sudden, and potentially devastating, transition has come; a sea change of class D has swept in from the sea! Tucked away in the folds of Europe, a team of more than 40 engineers at ICEpower have been contributing to the equivalent of a tectonic event, setting off a wave of class D development globally that is breaking over the industry. I believe it will ultimately bring the decline of class A, A/B, SET, Triode, Pentode —all of them. For years the signs of the shift have been present, but who listened, who really believed? Who among the amp makers fastidiously studied class D, and made arrangements to be among the survivors? A few did, but most did not.

I am impressed by a recent scholarly work on the global Flood — yes, the one mentioned in the Bible book of Genesis. Before scoffing, consider whether you, like the author, are a trained geologist, and with decades of work with some of the largest oil companies on earth. Now that your ego is checked, I submit for your consideration the book *Carved in Stone* by Dr. Tim Clarey. It presents a coherent scientific theory of the catastrophic collapse of the sea floor, subsequent runaway subduction of it into Earth's core, and displacement of phenomenal amounts of water from shallow seas of the early earth in tsunamis that swept the low-lying continents, ultimately forming new features, such as the high mountains! Maps and charts of lithographic strata, based on the petroleum industry's oil and gas well drilling data, lay out the mega sequences (tsunamis) that rocked the world. It discusses thoroughly the lithosphere, asthenosphere and other aspects of the earth's lithography, showing precisely what kind of rock was deposited by global tidal waves, and where. Along the way it discusses such curiosities as "gigantism," the enormous size of flora and fauna of the pre-Flood world preserved in the fossil record. Anyone who wants to see rock hard scientific evidence of the Deluge needs to see this work!

Belief is an interesting phenomenon. The presence of strong evidence is not sufficient to engender belief; reliance upon the *source* can be pivotal in the mind of the believer. Scientifically supported things can be rejected because of disdain of the source, while an alternative source may engender confidence, even in poorly supported, wildly speculative claims! *Confidence in the source is important to both religious and scientific belief, as it determines the acceptance of what one cannot independently verify.* I am about to tell you some things about class D amplification that you may not wish to believe. Some members of the community will be tempted to dismiss my thoughts

because they know more about amplifier design, and others will question my motives. You may decide I am not a credible source. However, it will not change the well-reasoned discussion and even-handed comparisons that follow, laying the groundwork for a mega sequence of the destruction of the aforementioned classes of amps. The world of HiFi amplification is being rocked!

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I am not alone

Rarely do I get indirect confirmation of evaluation of a component and conclusions reached in regard to industry trends from a different HiFi publication's review, but it happened in this instance. I do not care greatly what other reviewers say in regards to equipment; I prefer to reach my own conclusions based on my impressions from attending shows, discussions with manufacturers, and handling products. I have a busy reviewing calendar and have little time to dedicate to following reviews from any source. I am usually through *The Absolute Sound* or *Stereophile* in less than 60 minutes, and I typically pay more attention to the ads for new products than the articles. I am unwilling to cut into my listening and reviewing to delve more deeply. I treat other reviewers the way I treat viewing professional sports; it's nice occasionally to watch, but I would rather be involved in activity than watch someone else play. Once in a great while there is a review worth a closer look.

In the article I am about to reference, the larger implications in regard to the industry are more important to me than the discussion of the amplifier under review. I refer to the February 2021 issue of *The Absolute Sound* and Jacob Heilbrunn's review of the PS Audio Stellar M1200 amplifier (I do not recall meeting him, have no personal intent associated with my comments, and have not been in communication with PS Audio). It is a hybrid mono amp using the ICEpower mono module (1200AS1), versus the stereo module (1200AS2) used in the i.V4 Ultra. The designation M1200 is not to be construed as indicating 1200 Watts into 8 Ohms; its output into 4 Ohms is 1200Wpc. The output of the i.V4 Ultra is 1000Wpc for up to four channels. Into 8 Ohms the PS Audio amp outputs 600Wpc, and the Legacy amp outputs 610Wpc.

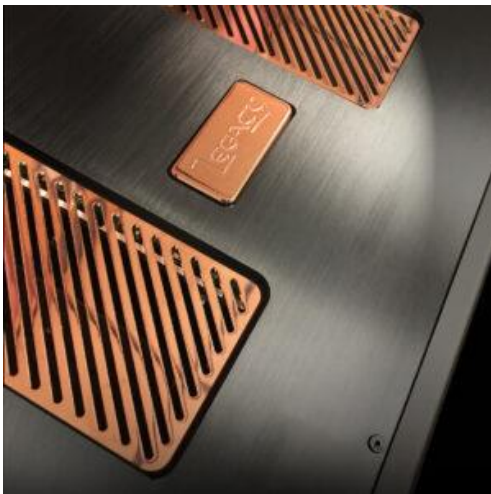
Paul Meister, Sales Manager at ICEpower America, pointed out that the performance of these modules should be nearly identical. In case any technically oriented listeners wondered about the potential for crosstalk in the bridged stereo module used in the i.V4 Ultra, Paul shared with me, “There is potential for more crosstalk in a multichannel design, but thanks to the dual fixed bridge mono outputs, an inherently low idle noise level and other engineering techniques, the crosstalk between the two channels is extremely low, especially for the given power output.” The selection of the same model of module in either stereo or mono form should not be a determinant of an amp’s overall performance in this situation.

Bill discusses the topology of each channel’s design as follows:

“All amplifier channels in the iV series are differential bridge designs. Such designs provide much greater voltage and require higher current power supplies to support it. The inputs to each channel are balanced as necessary.

The iV4 Ultra dedicates the entire power supply of an 1200AS2 to supply the exceptionally high current capability. The chassis design is unusual as each chassis component has the anodized coating polished away at mating junctions to provide a continuous electromechanical cage. The custom fabricated mounting aluminum bracket greatly increases heat sinking. Each module’s heat sink has an individual grounding lead running directly back to the inputs.

The iV Ultra Monobloc adds a high purity copper bar weighing in a 6 pounds to further refine the grounding scheme.”



I consider tubes to be dirty, outdated technology in comparison to what is happening with class D. One of the strong conclusions I reach in this article is that I am pretty much done with tubes. I see no compelling reason to subject myself to such comparatively unstable and noisy parts. This judgment will no doubt incur much wrath, but please keep your vigilante attitude in check until you have heard the likes of the i.V Ultra design. I also must hold my assessment tentatively until such time that I might work with a class D amp with a tube, like the Stellar M1200. Do I have a great desire to do so? No, not really, but if I am to prevent anchoring to a preconception, I have to push myself to explore beyond what I think is correct. Perceptions can be quite strong, but wrong. I remain open to the possibility that a class D design with a tube might be surprising. This is all peripheral; the takeaway from this discussion is that both Heilbrunn and I are *quite impressed* by the global performance of these ICEpower-based designs. In other words, multiple component makers are utilizing new modules to create stunning class D amplifiers.

This armchair assessment of the two amps apart from an actual comparison is soft reviewing, and as expected will be debated by others who will offer their armchair opinions. There is an aspect of

Heilbrunn's review that I consider more important, and it is revealed in his subtle comments, such as when he drives the Wilson WAMM speakers and reports, "The M1200 is not a good amplifier; it is a superb one." How many \$50K+ amps, mono or stereo, has this man used in his system, and he is enthusing about an affordably priced Class D as superb? I get it, because I am hearing the sibling ICEpower module in the i.V4 Ultra, which employs the same ICEedge technology.

As I read it, he softens the implication of the Stellar M1200's performance, the pertinent phrases being, "The M1200 poses a real challenge for much of the audio industry... upends many old verities of switching amplification." I will be more direct; the makers of class A, A/B and tube amps are in serious trouble. They are going to be routed by class D, and sooner rather than later. The i.V4 Ultra is *already* superior in every parameter of sound quality among the amps I have used. It is impossible to tell whether the M1200 has some softness, which calls for a slightly moderate devaluation, or whether Jacob is softening the message for the sake of manufacturers of other genres of amps. It could be counter-productive to accessing amps for reviewing if one dismisses them, a thought I have considered seriously as I write this article. Weighing anchor entails leaving something behind, and I am ready to do so.

A tidal change is coming, and it will break with ferocious power upon the landscape of traditional HiFi amp manufacturers! Many will not survive because they did not pivot and take up the class D cause in time. Eventually there will be myriad cast-off tube and SS amps for the picking by budget audiophiles, but those who have moved to a better expression of SOTA will consider them second rate. The value of such used amps will drop precipitously, and owners will be appalled at the pitiful selling prices. The damage will be attributable to the ascendancy of class D. For twenty years it has been moving, developing, and now a catastrophic event is underway in the amplifier sector.

Too dramatic, you say? Completely out of touch with reality? Perhaps, but those who know my writing know I do not play games with performance. I do not hold equipment to use in reviews for appearances. I could seek to pad my ancillary components with high profile products, but I refuse to do so if they are outperformed. This leads to a bombshell: The i.V4 Ultra outperforms even the 157-pound, \$42K Pass Labs XA200.8 Mono Block Amplifiers that I lauded only months ago at 30 pounds (heavy for class D).

This is not a hit job on Pass Laboratories but on all other classes of amps! Actually, not a hit, but an announcement of a memorial service. These others are dying, and I have attempted to warn some more than once. I personally discussed with Nelson the urgency of moving into class D, telling him that I know of no other designer that could do justice, who would be so capable of exploring that genre of amplification. Nelson is an eminently polite man, and was very considerate as he brushed aside my recommendation.

Meanwhile, those who have endured the jousting on a particular thread about class D amps at an online community have seen the announcement by participant "Atma-sphere" that his company is working diligently on a class D amp, and has received a patent that he feels is a breakthrough. Atma-sphere is positioning itself to survive the tsunami. Likely, Pass Labs will also come through intact, because of its sheer clout, global presence and the fierceness of adherents to class A and A/B. It will be heartbreaking, devastating to the small manufacturers. As class D draws away thousands of customers, these companies will implode. Increasingly, audiophiles will refuse to pay big dollars and haul heavy amps of *any* class that simple comparison to current class D demonstrates cannot compete. Do not discount the i.V4 Ultra as an HT multi-channel value play, or think I am skewing the perception of performance to accommodate a favorable outcome for class D. I am giving a hard performance assessment of this amplifier, and drawing conclusions based on it.

There will also be winners, even new companies, to emerge with the class D trend. As more designers and manufacturers jump onboard the good ship class D, it will sail ever more proudly. The

gap will continue to widen until, with wholesale abandonment of these others, save the hardest of hard-core nostalgia users, ridiculously priced (relative to performance) boutique amp makers, and bottom feeders picking up the pieces of company remains, class D will emerge as the undeniable victor, the premier amplifier genre. I expect these others to go to war over this, because this is business and people's livelihoods. That is why I have attempted to give fair warning. The playing field is not level, but neither is it impossible for more traditional amp makers to participate, given that companies like ICEpower make OEM modules available. If not for that, it truly would become a bloodbath in the amp sector.

In terms of system building, however, it is already too late for these other classes of amps. I had the bulk of these comments, including the revelation of the return of the XA200.8 monos, in my notes for use in this article *before* I saw Heilbrunn's review. Discovery of the review of the Stellar M1200 was independent confirmation of my assessment. I may be premature in my predictions, but I am confident that I see how things roughly will play out. I am already shifting; in terms of review planning, I am going to pull away from those other classes. Tube amps are simply too dirty and fraught with idiosyncrasies, and class A and A/B is showing to be old and rehashed technology, with few major tricks up its sleeve. I have not handled the uber-amps, ones in the \$100K+ range, and perhaps for now they are safe — for now. That, however, impacts a scant percentage of the marketplace, which may ultimately be the only sector of such amps apart from class D to survive. Frankly, longer term I do not see redeeming technology on the horizon to save those genres of amps.

If this particular class D amp has bested all the tube and SS amps I have used in 14 years— and ICEpower is only one class D horse in the race—I conclude the amplification race belongs to class D. Having said this, I reserve the right to conduct a comparison to what I feel is an unusually worthy contender from a different genre, but I think I'm done with the bulk of tube and other SS amps.

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Comparison to class A and A/B

How can I make the statement that the i.V4 Ultra has bettered every tube and Class D amp I have used in 14 years if I did not do a direct comparison? The answer is fairly straightforward; I have elevated the quality of the amplifiers I use over time, moving from one reference to a new one, while my source, the Small Green Computer sonicTransporter and the SONORE Signature Rendu SE with systemOptique, has remained more stable. The Pass Labs XA200.8 monos were the best solid-state amps I had used to date. Note that I have kept several speakers for about eight years, which is a lifetime for me! I have heard the King's Audio Kingsound King III and Legacy Whisper DSW Clarity Edition with many amps in a variety of configurations. I had previously built more than a dozen systems with the XA200.8 monos. They were my reference, and they made both of these speakers perform at their best. I do not believe that bringing back any of the previous amps would make them perform on a level with the i.V4 Ultra. When I have revisited previously owned gear, it ends up being a disappointment, and the fact that I have moved on to better sound is reinforced by the experience. What is to be gained for myself or the average audiophile if it takes better than \$50K and hundreds of pounds in components to have a chance at bettering the i.V4 Ultra? Is that a worthwhile pursuit? Perhaps for some with much deeper pockets and a younger back, but not for me. I'll leave what I consider a low probability search for a much finer class A or A/B to someone else. They can knock themselves out wrangling behemoths in an effort to eclipse the likes of the Legacy amp.

Clearly superior

It does not take long to hear the superiority of an amp when you know what to listen for, and in this instance, I worked through dozens of pieces of music that I have collected into my reviewing playlist. Here is a tip for those who lack direction in assessment of gear; it is not required to hear entire tracks or cuts. Even a segment, a minute or two, from an intimately known piece is sufficient to reveal the fundamental differences. When dozens of such pieces are so affected, then the conclusion is sure: the amp has better resolution, impact, transients, headroom, quietness, etc. Sometimes an amp has a couple of these qualities in abundance, and it requires more careful sifting through the music. But, in this case the outcome was obvious, not questionable. I could come up with no parameter in which the i.V4 Ultra was not superior.

It should be remembered, however, that while the parameters of performance can be assessed in a straightforward manner, the emotional impact, whether one connects with the component in terms of how the music appeals to the soul, is also critical. For that reason, longer term listening is necessary to reinforce that the changes and benefits are indeed desirable. I do not simply put the amp through the paces and declare a winner. I combine this with extended listening to see if the improvements are indeed more pleasurable. Most of the time they are, and the i.V4 Ultra presented itself like all superior components — the longer I listened to it, the more desirable it became, thus confirming the benefit of the sonic advantages.

A quick take, repeated multiple times with different sets of music, is sufficient to make a firm conclusion in regard to performance. However, it is not sufficient to answer the question of whether the amp will deliver more enjoyment over time. For that answer I turn to listening sessions of full playback of pieces, with particular attention given to whether I feel fatigue from harshness over a longer listening session of 1.5-2 hours, or whether the amp is unexciting such that I feel like falling asleep. One of the most telling aspects of the difference between these other genres of amps and the i.V4 is the preternatural quietness and nonexistent noise level. Noise level dictates how much grunge will be heard when an older recording is played back. Until the arrival of the i.V4 Ultra I had despaired of higher-level playback of my oldies. The XA200.8 was good, and I thought perhaps about as good as it can get in terms of banishing amp noise and allowing the signal to shine through. The i.V4 Ultra seems to be an order of magnitude better when it comes to adding no noise to the signal. The other bugaboo for these non-class D amps is sheer distortion associated with powering music at higher levels. When the distortion is combined with older, softer recordings, it makes them sound thin, harsh, and unforgiving. That is why I was frustrated listening to my old favorites; they didn't sound welcoming.

The i.V4 Ultra can be jacked up to an intimidating level with no perceived distortion and no noise being added. I know fans of Pass Labs and other classes of amps will rage against this discussion, demanding it be known that these others do not add distortion. If you hear the i.V4 Ultra, you will understand — completely. As an example, when I listen to the low frequencies as found in “Royals” by Lourdes or “Flight of the Cosmic Hippo” by Bella Fleck, the 15” drivers’ action on the Whispers seem as tight and precise as 6” woofers in bookshelf speakers, but with the benefit of lower frequency extension.

It is a singularly thrilling experience to hear an electrostatic speaker that you thought might be maxed out in terms of cleanness driven to a more resolving performance. People think that because they have put a Bryston or McIntosh amp with a Maggie or an old Quad that they have something special. You have only begun to experience the riveting precision of a panel speaker! Put the i.V4 on your speakers and you'll start to hear serious *panel magic!* It is becoming well known that class D amps do not have difficulty driving lower impedance speakers, but historically they have been white or clinical sounding. I can hear the rebuttal now, “class D will never have the warmth and fullness of class A or tubes!” Wrong. I'm hearing it.

At one point during the review, I put my inexpensively restored Ohm Walsh Model F omnidirectional speakers into the room with the i.V4 Ultra, even though using only two channels of the amp. Prior, I had been using the Kinki Studio EX-M1+ Integrated Amplifier, but the speaker was indistinct, even though I fixed its primary problem by removing half the dense batting in the bass cabinet. The thing that saved the performance of the Model F in terms of worthiness to be heard was putting the i.V4 Ultra with it. The old full range driver finally had some precision to give me, and was not as sloppy as with the Kinki Studio, even though the EX-M1+ is a fine integrated amp.

The shocker – tone color

The next point I am going to make will sound contradictory and, in the minds of some, impossible. The i.V4 Ultra not only has exquisite detail, it is also exquisitely and tonally pure. It brings a sense of the ideal to each voice's and instrument's tone and reduces the incidents of sharpness in some notes that other amps project. How can a switching amp do this? I don't know how, but it is surprising when class A or A/B solid state amps like the XA200.8 and the EX-M1+ sound rougher and less pure.

It seems as though the precision of the i.V4 Ultra aids in the perception of proper tone. Notes are not as fuzzy as with class A and A/B amps I have used, not to mention the relatively ragged notes that most tube amps have created. With this amp notes are emitted as solid, precise, and without sloppiness. A listen to Brian Bromberg's "Elephants on Ice Skates" confirms the precision, but it is the unwavering correctness of color and tone that impresses. What's more, the content within the note, the miniscule fluctuations that last split seconds, are revealed cleanly. I have not heard such from tube amps at all, and not much from the solid-state ones I have reviewed. Similarly, as the background is so quiet, the decay of notes is extended from what would be expected of music coming from a digital source. There is a sense that the amp has terrific power, but is not heavy-handed. Class A and A/B amps sound relatively plodding in comparison, as though notes are not hit, but wallowed in, as though struggling to get entirely off one note before making another, resulting in more of a merging of notes. The differential design of the i.V4 Ultra and a high damping factor of 750 average from 20Hz-1KHz make it sound obviously fast and hard hitting, especially in the bass.

Speakers matched with the i.V4 Ultra nicely show not only their relative cleanness, but also their relative warmth. The coolest sounding was the Vapor Joule White, and then the King III, with more warmth attending the Aspen Acoustics Lagrange L5 MkII, and the most warmth found in the Whisper. Why is this so? I suspect the primary reason is the amount of bass surface radiating area and frequency extension. While the King III has more surface area than the L5 MkII, the latter has a powered subwoofer that reaches far deeper. No doubt the amp contributes to the sense of warmth of a speaker, but even with the cooler, some would say brighter, speakers, I did not sense an overabundance of brightness or an imbalance of energy top to bottom. The attributes of the design seemed to be enhanced, not reworked and steered. In this way, the i.V4 Ultra is the most neutral amp I have handled, and that neutrality complemented the speakers by not editorializing or masking. Neutral in this sense is clean and clear, like the air in a room that is transparent, versus attempting to see through a haze.

Speaking of air, in the past when playing pieces of music recorded at lower levels it has been problematic to play them back at higher listening levels, as the system noise, a large part coming from the amplifier, has been irritating. Music with dramatic pauses (silent passages) can be disturbed by amp hum or hiss through the drivers. Most amps are not absolutely quiet, they are relatively quiet. In an average room one may not hear the noise, but in my custom listening room, which has a noise floor about 8 dB lower than the average quiet room in a home, any amp noise is heard. I have gotten used to most amps having their own telltale noise. Not the i.V4 Ultra! Black background is an appropriate description for passages that are supposed to be quiet, even though

there is a signal. The i.V4 Ultra *excels* at such things. I strongly recommend that listeners to very low energy music or pieces that are recorded at lower levels and are thus prone to more amp noise if turned up audition one of the amplifiers in the i.V Ultra line.

Layering of the performance is noticeably superior with this class D amp. By layering, I mean the ability to hear multiple streams of instrumentation or voice as they overlay each other. These usually get confused due to the amp's inability to cleanly render each of them, making the nuances of each instrument's or voice's contribution difficult to distinguish. The layering the i.V4 Ultra produces is exemplary, allowing my mind to think though several contributing threads to the performance simultaneously!

Examples of all these features — precision, tone, air and layering — are heard in one of my cherished works, *Reflection on a Decade* by Checkfield, recorded in 1997. There is a great deal going on in a piece such as "Africa" or "The Good Brown Earth," but it happens not rammed together, but as lilting layers crossing each other. The i.V4 Ultra defines each layer so it can be appreciated. I adore what this amp does for precision and tone, as well as what it does not do (mask). It is as though the Legacy amp has additional powers of magnification available to it that escape even fine Class A and A/B amps. It simply can resolve non-audiophile music in a superior fashion without making hash of it.

Recalling my pre-reviewer days, when having *fun* in listening was as important as having a correctly rendered experience, I pulled out some decidedly non-audiophile-approved pieces such as George Benson's *While the City Sleeps* (1986) and Gino Vanelli's *Brother to Brother* (1978), both of which discs I have loaded onto the sonicTransporter and Signature Rendu SE. The i.V4 Ultra lowers the noise, creates more air, and layers the individual contributing elements such that the entire piece breathes, a description that analog lovers use to distinguish their preference of vinyl to digital. This amp allows digital sources to breathe!

Are these observations in regard to the i.V4 Ultra universally true? I think so, but I was reminded of how one still has to tune a rig in order to maximize its potential. Toward the end of the review period, I received the parts necessary to convert the PureAudioProject Trio15Horn1 to the formidable Quintet15 Horn1 (on review). I have moved along in changes to the speaker, starting with impressions gleaned from the stock speaker, and introduced changes, including an upgraded Mundorf Evo oil-filled capacitor in place of the stock cap, and upgraded wiring to the horn. I am in the process of assessing these changes currently.

One of the changes inadvertently gave me a bit of trouble. Prior to introducing a second iV4 Ultra in a novel multi-channel mono configuration (remember, do *not* join outputs as this is a differential amp, and doing so may cause damage!) I had swapped the BAV (Belden Audio/Video) Power Cord with a Clarity Cable Vortex Power Cord. In the Iconoclast by Belden Cables review I averred that there can be a tick of improvement of the Iconoclastset with certain speakers if a slight mixture of Clarity Cables, typically a power cord, is introduced. Having done that, later I added the second amp, but forgot that it was using the Belden power cable.

As I began to listen to the system there was a disruptive, bothersome imbalance in the center image for which I could not account. The bass seemed not quite even, the center image's midrange was less on the left side, and there was a disturbing variance in the presence of the treble between the left and right speakers! The disparity was so strong that I could not stand to listen to the imbalance, but had to find the cause. The speakers were positioned properly, the crossovers checked out, the wiring was perfect. Yet, when I played a voice test track to assess "Left... Right... Center," both the output and the tonality of the horn on the left channel was noticeably duller and had less output. As a learning point for us all, I share that my attention was drawn to the left speaker as the problem, because the right speaker seemed cleaner with more sparkle in the treble. In reality, both channels were acting in accord with the system as it was set up.

Finally, it struck me that I had two different power cords on the amps, a variance that definitely can cause such an issue! Replacing the remaining Belden Power Cord with the Vortex, the system snapped into focus, the center image larger and whole, spanning the appropriate gap between speakers, the bass more linear and even between the towers, and the tonality evenly distributed. This was confirmed instantly when I replayed the voice test track. Every aspect that had been different — output, tonality, resolution— now was a perfect match to the right speaker. As expected, music was played back properly as with a system set up correctly.

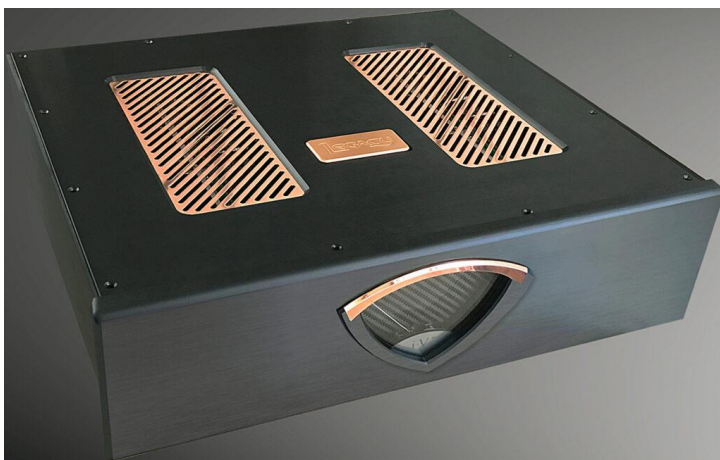
Can a power cord do such to an amp and entire system? Absolutely! My faux pas is a great way for you to learn the power of power cords. Use two different models on your monoblock amps and see how it skews the system, and when a matched pair of PCs is used, hear how the rig reorients to proper sound qualities! Also, confirm that what you are hearing is in fact happening by employing a voice test track as I did. This is likely the cheapest, easiest way to discover for yourself the efficacy of finding the right power cord for one's system. (I still recommend that cables be assessed in sets, not as a mixture of brands/models.) The i.V4 Ultra was splendid in this mishap-turned-learning-session, for its impeccably honest performance allowed me to learn not only what was wrong with the setup, but proved that power cords are critical to performance.

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Strana 5

What these amps were sent to do (And another thing they were not sent to do)

First, what were these amps not sent to do? They were not sent to conduct a comparison similar to the one that I did ten years ago for my article at Dagogo.com, “Audiophile Law: Thou Shalt Not Overemphasize Burn In.” I told Legacy Audio Technologist Brice Auxier, who has been terrific in arranging and managing the loan of the amplifiers, I had intent to conduct comparisons such as I did in that article. He thought it was a great idea. It was a great idea because there is too much implementation of poor methods in the audiophile community. I put in the time to determine what does and does not actually propel systems to higher performance, and I work with methods that are efficacious, regardless of the popularity of questionable methods.



In that initial article, I wrote about how I learned from actual comparisons that paying attention to (attempting to work with) such things as break in, warm up, and the like is a waste of time. These variables conferred no changes sonically to equipment, regardless of the insistence of emotional audiophiles. In my updated comparison, recently published, I used not five variables simultaneously,

but eight: “broken in” power cord, interconnects, speaker cables, and i.V4 Ultra amp, amp stand, isolation devices, weights atop the amp, and warmed up amplifier versus none of these conditions. As it involved general testing and has no relevance to any particular feature of the i.V4 Ultra, I shared the results in a separate article, Audiophile Law: Burn In Test Redux.

The raison d’être for these four-channel amps to be here was for an active setup of the Whisper DSW Clarity Edition, to assess this prodigious speaker’s performance with six channels (8 if subs are employed) in use with the Legacy Wavelet, which incorporates preamp, DAC, processor, and room control. This was an exciting moment for me, as I previously had glorious experiences with the Whisper, and have been engaged in aggressive system building with the i.V4 Ultra, as seen above. The climax of the review was using the i.V4 Ultra with the Wavelet and the Whisper speakers. One might expect that this system would have a high degree of synergy.

I cannot stress enough how exhilarating the experience has been using the i.V4 Ultra as an amplifier driving a variety of speakers of different genres, and how perceptually perfectly it has done so! This is easily my favorite amp of all time. I have owned many amps of different iterations, and reviewed many more. I would not trade the sound the i.V4 Ultra gives me for any of them. Have I made it clear enough yet? Class D is now formidable, a monster genre on the move to annihilate the other classes over time. Get comfortable with the idea that *you* will eventually be using a class D amp, not because of lack of choice or a weak back, but because your ear has been bent toward it, even if reluctantly. If sound quality really is the most important thing, you will be using a class D amp in the nearer future. Deny it if you will, but remain open to the possibility that you could be wrong. Drag your anchor if you must, while the world sails on.

Of the speakers used in this review, the pinnacle, the most powerful, dominating speaker system in terms of creating massive scale and overwhelming dynamics with the best frequency extension, especially with the Legacy EXTREME XD Subwoofers, has always been the Whisper. In terms of speakers I have on hand, the King Sound King III (see review) is large scale, the PureAudioProject Trio15 Horn1 has striking immediacy, and the new Aspen Acoustics Lagrange L5 MkII (review forthcoming) has ineffable beauty. None roll so much of the big event transducer into one package as the Whisper. When I set these speakers up, I *know* the room will be pressurized as much as I wish and completely without strain, the lowest of notes will be clear, the excitement of big band, orchestra, or large acoustic performances will be rendered palpably, and I will know I have experienced an impressive system.

Active/passive modes

I have spent a fair bit of time discussing in general the result of using other passive speakers with the i.V4 Ultra, so I will not spend as much time on that in regard to the Whisper DSW Clarity Edition. Over the years I have been able to improve the performance of the speaker’s bass, which looks like it could blow doors off rooms, but is more of a gentle giant. Though the pair sports eight 15” woofers, they are positioned precisely to reduce off axis (side) dispersion, allowing placement of the Whispers closer to walls. Indeed, I have often placed them less than two feet from my side walls without discernible negative effects.

The major improvement brought by the i.V4 Ultra in terms of bass was not a sense of deeper frequency extension, as I believe the XA200.8 monos were as good in that respect, but chiefly in beauty and precision. I very much enjoy hearing bass lines rendered distinctly in music, and when they are rounded and merged to the point of being less distinct, I am not happy. The i.V4 revealed tauter bass performance in whatever music I played. It is easy to achieve impact with eight 15” drivers operating passively, but difficult to achieve coherence like a pair of 15” drivers. The

resolution, even at lower frequencies, is a selling point of the ICEedge technology, for the Whisper had cleaner bass than I have achieved with many typical tower speakers, especially ones with passive radiators. I think the bass was as clean as the 11" Audio Technology drivers of the Vapor Audio Joule White. That has not happened historically with tube amps and even fine SS amps. The i.V4 Ultra distinguishes itself in so many respects, and the fine, impactful bass/LF is a pleasure.

The Iconoclast by Belden Cables are a perfect choice for this exceptional amplifier. Never has the Whisper carried such resolution and warmth at the same time. Usually, the speakers lean one direction or the other, such that I have on occasion with particular equipment resorted to mixing brands of speaker cables on the three sets of input posts, bass, midrange and treble. The ribbon drivers are at times forward with harsher music, but with the i.V4 Ultra there simply is no excess of presence. The extra resolution afforded by the amplifier turns a treble note into an isolated micro-event, with happenings within. As such, the treble is less laser and more arc light; they both have intensity, but the degree of focus is the difference between illuminating and cutting.

With each improvement in amplification the choice of Bill Dudleston's drivers for his speakers is confirmed. What might appear to the eyes as a disparate collection of drivers that can't work right become more and more seamless, and the i.V4 Ultra draws them closer than ever, but does not make a mish-mash. Can such results be improved upon? Years ago, when I first compared active crossover results with the Wavelet in passive speaker mode, I concluded that all things equal (or as close as possible), the active setup was superior. But, when components were changed out in either system, the results were not consistent. With particular sets of components, the passive setup could outshine the active setup. Now, years later, with an amp I would not hesitate to call extreme, I am returning to that comparison so as to not anchor to older impressions.

Active operation

I did not set up the Legacy Audio Wavelet with the pro quality XLR cables supplied by Legacy that are typically used for the speaker, but used the three sets of Iconoclast by Belden 4x4 Generation 2 Ohno CCC XLR Interconnects and associated SPTPC (Silver Plated Tough Pitch Copper) Speaker Cables, both the top models. I had been working with the Iconoclast cables while finishing up their review, and the Whisper was the final speaker, so the cables were in place for passive operation. The predominant reason was for consistency in assessment; the proper comparison is not to switch out cables, but use the same ones even though the speaker mode changes. Besides, this assured the highest quality sound from both modes of operation.

The first experience that met my ears when I turned on the system with the speakers in active mode was that there was something different about the setup, even though no music was playing. I was not hearing overt noise, but the sense that the energy level had changed was nearly palpable, almost like a subtle pressure wave. The stillness factor was disturbed, the passive system being inert, but the active system seeming to have a kinetic potential. Even so, I could not detect any overt noise. It was nearly as distinct a feeling as entering a different room. I doubt that most people would have that experience, given that my room has about 8dB lower ambient noise level than most quiet rooms in homes. There seemed to be some very low-level event associated with the change from the crossover, and I suspect it is due to increased gain. By the third session, the turn-on sequence and feel of the system was comfortable, without the sense of it being different from the passive setup. It will be a curiosity to return to the passive setup and see how that strikes my senses when it is first started up.

The first moments of hearing the speaker were also distinctly different, primarily due to the leap in resolution, increased headroom and increased dynamic capacity. There were several things in terms

of the components changing in this setup, many of them occurring in the Wavelet, which handles the functions of DAC, preamp, processor and room correction. This was not expected to be an apples-to-apples comparison, as the entire management of the signal from DAC through to amplification was altered. Therefore, with this setup I cannot speak in an absolute sense of which is better, active or passive.

Audiophiles should recognize the inherent problems in drawing firm conclusions between active and passive systems, but often do not. I see recurring discussions on forums of individuals who either recommend an active speaker, or state that they switched to an active speaker of a different brand than the passive. Nothing can be known with certainty in regards to such cases, except that the owner prefers one or the other. It is misleading to suggest that such a comparison proves that active speaker systems are superior. The systems I am making with the very same speaker are closer to the kind of conditions necessary to make a proper evaluation. It should be obvious that the potential exists that any given passive speaker may outperform any given active speaker. I appreciate that fact when I use the i.V4 Ultra with passive speakers. I do not believe a smallish active monitor would outperform a speaker such as the Salk Audio SS 9.5 (reviewed) with the i.V Ultra amp. Only comparison would tell definitively, but it is an unjustified perspective to give the nod to the active speaker without a comparison. Yet, such declarations are made regularly, which shows how far from a supported opinion the preponderance of comments are on the subject.

More linearity with active mode

The one aspect that seemed to suffer a twinge when moving from passive to active operation was coherence of the driver sets. Conversely, the resolution seemed to improve. Typically, when resolution increases, the drivers seem to meld better, but in this case, I sensed my ears being drawn more to the individual drivers than when run in passive mode. The change was not obnoxious, nor enough to quit active operation, but it took some adjustment. The finer detail, however, did not call for adjustment.

As systems I have built with the Whisper over the years have improved, I have paid attention especially to the bass performance, partly because when I first worked with the speaker, it really was shy on the low end for a big tower. As I have elevated the component chain and cables, the bass performance has improved, chiefly shown in more articulate reproduction of the bass line of both electric and upright bass. Much finer details of plucking and sliding of the fingers along the neck of instruments come through now. Electronic notes are heard to have character instead of sounding like a flat disgorgement of tone. Pieces of music that have overlaid LF effects and that used to sound like muddiness or distortion (I thought, maybe residing in the recording), are now revealed to be layered effects, even down below 25Hz! When the effort is made to tease out the subtleties of the low end, one realizes that composers and artists have not been neglecting the basement of the range!

The nature of the active setup reminded me of some cables that are recessed on the midrange and emphasize the treble. Do not misconstrue; I am not saying that the active performance was too tipped up, or strident. It was, however, slightly more emphasized in treble, and a touch less emphasized in midrange and mid-bass than the Salk SS 9.5. The SS 9.5 had to-die-for timbral qualities. When I switched speakers, there was some shift in this regard in the passive use, and another subtle shift in the same direction with active operation. In the first day or two of listening I was concerned it would prove too much for my taste and thought I would need to access the Wavelet's software remote to adjust the relationship of the drivers slightly. But, as I gave it more time and played a wider selection of music with it, I decided it was acceptable at the current setting. I will add that I am not going to delve into the operation of the Wavelet's software remote,

accessible online through Bohmer Audio, because I gave it extensive treatment in previous articles regarding the Whisper speaker. This review focuses on the amps, and that is where the focus will stay.

There is one particular adjustment of the speaker that has proven effective over time in opening up the soundstage and getting the fullest experience from the speaker, whether in passive or active mode. It involves removing the rear grill that sits atop the rear firing driver and the backside of the bass drivers. If ever there was a demonstration that a grill has an immediate (usually negative) impact upon a speaker's performance, this would be a fine example. I have taken to the habit of placing the box-shaped grills in the front corners of the room, making them quasi-tube traps. This maneuver both opens the speaker to allow nuances to fill from reflections off the front wall, making the speaker sound more like the quasi-open baffle that it is, and, simultaneously, improves the room-to-speaker interface in the bass region. When this is combined with my other adjustment that is always in play — shims under the back of the speaker's apron to tilt the front baffle forward such that the woofers are more equidistant from my ears — I am assured of a more refined listening experience.

Don't be shy of the active version of Legacy speakers now that ICEedge is here.

For many years I opted out of the fully active versions of Legacy speakers for one reason, that being I felt the ICEpower amps used internally were not of the caliber that I would lock them in as the amplification of preference long-term. Previous class D amps simply did not perform quite as well as finer class A and A/B, and I was unwilling to sacrifice amp selection for convenience and a slight performance benefit, knowing that it would be outdated in the near future.

I consider that decision validated, because the i.V4 Ultra shows how dramatically ICEpower has improved its own design. The performance level is now at a place where the buyer who is less concerned about longer term changes but wishes to start at a place closer to SOTA, does quite well opting for an active model of Legacy speaker. One would have to spend an inordinate sum relative to the price of the speakers to have a chance at a similar performance level. An attractive thought presents itself, the possibility that the i.V Ultra line will be enhanced as the years go by, and in that case, keeping the amps outside the speaker housing is a winning option. If you are going to take that route, make sure your cables are unassailable, and I can think of no better recommendation than the Iconoclast by Belden line. I still like having amps sitting apart from the speaker, even when in active x-over mode, because of options to change power cords, interconnects and speaker cables. Realistically, however, for the average audiophile who is not building dozens of systems, the amp nestled inside the speaker in the fully active version is a compelling choice.

As in the past, the results are not perfectly predictable

I returned to the passive x-over mode of the speaker and with some experimentation found . . . better sound! The significant change was swapping out the Exogal Comet for the COS D1 DAC + Preamp (reviewed), at the time of review a \$10K integrated DAC. I have made many a beautiful system with this DAC, and it is a great foil to the Comet because it is innately warmer sounding without loss of resolution. If a new setup is syrupy, with too much warmth and not enough detail, I reach for the Comet, and if I have some taming to do, I put in the D1. With two DACs there is a solution for every speaker system. In my previous articles I pointed out that the superiority of passive or active x-over mode for the Whisper is dependent upon the particular equipment used. That proved correct once again as I found the COS D1 and the i.V4 Ultra amps in faux mono mode, one unit driving each speaker with one channel, to be the best result of the three.

In this higher MSRP passive setup the resolution was once again elevated, however, there was a significant drawback. Clearly, the macrodynamic envelope shrank, the bass recessed once again in line with the previous passive speaker system. The mysterious kinetic power to let the bass drivers crank it up with less effort had retreated. There was a touch less refinement in the low end, but it was a bit fuller. From the midrange through the treble the speaker was more distinct. The amp supported the speaker cables thus: one pair of Iconoclast TPSPC Speaker Cables with spades were sent to the midrange and treble, while bananas were put on the bass posts. The bass had its own amp, and the mid/treble were bi-wired, joined at another set of amp outputs, resulting in two channels providing three sets of speaker cables to the speakers (avoiding combining channels). I would have ideally used six channels of amplification for this system, however the limiting factor was the COS D1 having only one set of outputs for XLR or RCA. I used Audio Sensibility Y Cables to split the signal in order to gain a total of four channels, and consequently one channel of the i.V4 had to be bi-wired to drive two sets of inputs of the Whisper.

In the Iconoclast review I discuss experimenting with the banana and spade connections and conclude the spades are audibly superior. In the current setup with the Whisper, I loved the added presence in the midrange, but it was crowding out the bass; the bass seemed insufficiently powerful relative to the midrange. I compared a couple different combinations of spade and bi-wire, and ended up with an unexpected combo: one channel driving spades going to the bass posts *and* bananas going to the treble (bi-wired configuration), and the other channel driving single speaker cables with spade terminations going to the midrange posts. This is an unexpected outcome, but shows why the audiophile needs to try all combinations and not assume the outcome is foregone. It took a fair bit to find the superior performance of this combo in passive x-over mode, but it was found! My conclusion, then, in regard to use of the Wavelet has not changed over the years. It is a fine all-in-one unit that may outperform any given integrated DAC or DAC and preamp combo, but I did not find it to dominate all combinations of gear. One would likely have to search and spend perhaps double the money to better it, but it can be done if desired. I think it would typically require higher end components, such as the COS D1 DAC, to get it done. Also, keep in mind that the room correction processing native to the Wavelet would be lost.

However, this is not a review of the Wavelet, but of the i.V4 Ultra. No discouraging words come to me in regard to its use in any of these combos. I heartily recommend it for either operation, passive or active. I can see why Legacy wants customers of its speakers to pair them with the i.V and i.V Ultra series of amps. It is a tough combination to beat, especially at the price.

A sea of beautiful sound

I consider the 2020-2021 transition to be one of the most pivotal times in my 30+ years of being an audiophile, and the emergence of dominant class D amplification is a large contributor. The i.V Ultra amplifier has handily outdone all other amps reviewed, regardless of genre, which is unprecedented. I invite the community to peruse the entire listing of amps I have reviewed from the past 14 years; there is not a one of them, not a single one, that I would prefer to be hearing. It's not just a matter of being somewhat better, or in some respects having advantage, but rather a wholesale superior experience.

Not everyone will reach the same conclusions, and I expect there to be significant push back from a particular group in audiophilia, those who avoid definition in favor of coloration. The i.V Ultra dispenses with indistinct overtones, but many listeners adore a dark or syrupy coloration, just as some enjoy the box contribution of a speaker's cabinet. Nothing will change that, and preferences will continue to push people toward particular genres of products. But, overall, the bulk of the

community will rapidly see the advantages of the new class D products, and in particular the i.V Ultra Amplifier.

There is a convergence of the finest attributes of sound quality happening in class D amps right now! Class D, which was said for decades to hold promise, is now delivering on that promise. Increasingly, audiophiles will expect the best of characteristics in sound quality in one genre, class D. As more class D amps flood showrooms and catalogues, the question will be not which genre of amp to get, but which class D amp to own.

This review has become a headlong rush to see what speakers will be paired next with the i.V4 Ultra because its power, immediacy with delicacy, rich layering, and fullness in timbre beg to be showcased with a lot of transducers. Its love potion of performance gets in the veins and is impossible to forget. One unit is enough to make me salivate at the thought of how it will sound in future rigs. Two units, either in active mode with the Whispers, or in the faux monoblock configuration with passive speakers, makes me wonder what fun I will have next with them? What kind of fun might you get into with the i.V (especially the Ultra) series of amps from Legacy Audio?

Copy editor: Dan Rubin

ASSOCIATED COMPONENTS:

Source: Small Green Computer sonicTransporter AP I7 4T and SONORE Signature Rendu SE and systemOptique

Streaming Music Service: Tidal premium

DAC: COS D1 DAC + Pre; Exogal Comet DAC and Plus upgrade power supply and Pulsar IR receiver; Eastern Electric Minimax DSD DAC Supreme with Burson, Sonic Imagery and Sparkos Labs Discrete Opamps

Preamp: TEO Audio Liquid Preamplifier

Amps: Pass Labs XA200.8 Mono Blocks; Exogal Ion (PowerDAC, used exclusively with Exogal Comet DAC); Legacy Audio i.V4 Ultra (pair, totaling 8 channels)

Integrated: Redgum Audio Articulata; Kinki Studio EX-M1+

Speakers: Aspen Acoustics Lagrange L5 MkII; Salk Sound SS 9.5 custom; Kings Audio Kingsound King III; Legacy Audio DSW Clarity Edition; PureAudioProject Trio15 Horn 1; Pure Audio Project Quintet15 Horn1; Kings Audio King Tower omnidirectional; Ohm Walsh Model F (restored)

Subwoofers: Legacy Audio XTREME HD (2)

IC's: Iconoclast 4x4 "Generation 2" XLR and 1x4 "Generation 2 RCA"; Clarity Cable RCA with Audio Sensibility Y Cables; Schroeder Method Audio Sensibility RCA; Schroeder Method Clarity Cable XLR with Audio Sensibility Y Cables; TEO Liquid Splash-Rs and Splash-Rc; TEO Liquid Standard MkII; Clarity Cable Organic RCA/XLR; Snake River Audio Signature Series Interconnects; (Schroeder Method, self-assembled with Audio Sensibility Y Cables used with several brands)

Speaker Cables: Iconoclast by Belden SPTPC Level 2 Speaker Cables; TEO Cable Standard Speaker; Clarity Cable Organic Speaker; Snake River Audio Signature Series Speaker Cables;

Digital Cables: Clarity Cable Organic Digital; Snake River Audio Boomslang; Silent Source “The Music Reference”

USB: Clarity Cable Supernatural 1m

Power Cables: Belden BAV (Belden Audio/Video) Power Cord; Clarity Cable Vortex; MIT Oracle ZIII; Snake River Audio Signature Series; Anticables Level 3 Reference Series

Power Conditioning: Wireworld Matrix Power Cord Extender; Tice Audio Solo

Manufacturer’s Comment (added 5/21/2021):

Dear Editor,

It is with humility that I thank you for your extensive review. It reads as a formal declaration that Class D amplification has arrived and it brings some significant benefits. The standards set by the likes of James Bongiorno and Nelson Pass who brought transistors to acceptance, or the elegant refinements of a Classic tube design from Kevin Hayes are not to be overshadowed. Instead they must be recognized as lasting steps in the progress of amplification for musical enjoyment.

Our vision with the i·V design was from a loudspeaker control perspective. Build a practical amplifier that would provide more voltage with the sustained current to back it up. Make it quiet, durable and as neutral as possible. The dynamic of today’s 24bit recordings demand a lower noise floor on playback as well as more power for transients.

<https://legacyaudio.com/news/is-your-system-24-bit-ready>

Legacy continues to offer service and stock parts on all of our products since day 1 of our 38 year history. This includes our latest i·V amplifier line. My longtime friend and industry colleague, Doug Dale of Coda, (who began with Nelson Pass in the days of Threshold) fabricated the early Legacy amplifiers for us continues to service these vintage units and offers upgrades.

Bill
Chief Designer, Legacy Audio

Dudleston

Slovenský preklad:

Autor: Doug Schroeder | Máj 2021

K čomu bol tento zosilňovač dodaný (a ďalšia vec, k čomu nebol tento zosilňovač dodaný)

Po prvé, k čomu nebol tento zosilňovač dodaný ? Nebol dodaný, aby sa vykonalo porovnanie podobné tomu, ktoré som urobil pred desiatimi rokmi pre môj článok na stránke Dagogo.com s názvom „Audiofilský zákon: Nebudeš prehnane zdôrazňovať zahorovanie“. Povedal som legendárnemu audio technikovi z Legacy audio, Briceovi Auxierovi, ktorý sa ochotne zaoberá aj vybavovaním a organizáciou zapožičania komponentov, že mám záujem vykonať porovnania, aké som robil v minulých testoch . Považoval to za skvelý nápad. Bol to skvelý nápad, pretože v audiofilskej komunite je príliš veľa implementácie nesprávnych metód. Dal som si čas na to, aby som určil, čo skutočne poháňa a nepoháňa systémy k vyššiemu výkonu, a pracujem s metódami, ktoré sú účinné, bez ohľadu na popularitu nezvyklých metód.

V tomto úvodnom článku som písal o tom, ako som sa pri skutočných porovnaníach dozvedel, že venovať pozornosť (pokusom o prácu) takým veciam, ako sú rozohranie, zahorenie a podobne, je strata času. Tieto premenné neprinesli sonicky žiadne zmeny, bez ohľadu na trvanie emocií audiofilov. V mojom aktualizovanom porovnaní, ktoré bolo nedávno zverejnené, som nepoužil naraz päť premenných, ale osem: „rozohrané“ napájacie káble, prepojovacie káble, káble reproduktorov a zosilňovač i.V4 Ultra, stojan zosilňovača, izolačné zariadenia, absorbéry na šasi zosilňovača a zahorený zosilňovač, proti žiadnemu nezahorenému komponentu podľa týchto podmienok. Pretože išlo o všeobecné testovanie a nemá žiadny význam pre žiadnu konkrétnu vlastnosť i V4 Ultra, výsledky som zdieľal v samostatnom článku Audiophile Law: Burn In Test Redux.

Účelom pre tieto štvorkanálové zosilňovače tu bolo aktívne nastavenie Whisper DSW Clarity Edition, aby sa posúdil výkon tohto úžasného reproduktora so šiestimi kanálmi (8 celkovo zapojených), ktoré sa používajú s Legacy Wavelet, ktorý obsahuje predzosilňovač, DAC, procesor pre korektúru akustiky miestnosti. Bol to pre mňa vzrušujúci okamih, pretože som predtým mal vynikajúce skúsenosti s Whisperom a bol som zapojený do agresívneho budovania systému s i.V4 Ultra, ako je vidieť vyššie. Vrcholom recenzie bolo použitie i.V4 Ultra s reproduktormi Whisper s Waveletom. Dalo by sa očakávať, že tento systém bude mať vysoký stupeň synergie.

Nemôžem dostatočne zdôrazniť, ako vzrušujúca bola skúsenosť s používaním i.V4 Ultra, ako zosilňovača poháňajúceho rôzne reprosústavy v rôznych hudobných žánroch a ako perцепčne dokonale to dokázal! Dosiahol, že ľahko sa stal môj najobľúbenejší zosilňovač všetkých čias. Vlastnil som veľa zosilňovačov rôznych iterácií (rôznych aj podobných konštrukcií) a testoval som ich oveľa viac. Za žiaden z nich by som nevymenil zvuk, ktorý mi dáva i.V4 Ultra. Už som to dostatočne objasnil? Trieda D je teraz impozantná, žáner monštier na ceste k zničeniu ostatných tried v priebehu času. Uvoľnite sa v predstave, že nakoniec budete používať zosilňovač triedy D a to nie pre nedostatok možnosti výberu, alebo slabej vôli, ale preto, že vaše ucho bude naklonené smerom k nemu, aj keď s počiatočnou nevôľou. Ak je naozaj najdôležitejšia kvalita zvuku, v blízkej budúcnosti budete používať zosilňovač triedy D. Ak to chcete poprieť, zostaňte otvorení možnosti, že by ste sa mohli mýliť. Pokiaľ môžete vytiahnite kotvu, lebo svet sa plaví ďalej.

Z reproduktorov použitých v tejto recenzii bol vrcholom, najsilnejším a dominantným reproduktorovým systémom z hľadiska vytvárania obrovského rozsahu a ohromujúcej dynamiky s najlepším rozšírením frekvencií, najmä so subwoofermi Legacy EXTREME XD, vždy Whisper. Pokiaľ ide o reproduktory, ktoré mám po ruke, King Sound King III (pozri recenziu) je veľkého rozsahu, PureAudioProject Trio15 Horn1 má nápadnú bezprostrednosť a nový Aspen Acoustics Lagrange L5 MkII (pripravovaná recenzia) má nevýslovnú krásu. Žiadna z reprosústav týchto veľkých osobností, nezroluje toľko do jedného balenia ako Whisper. Keď nastavím tieto reproduktory, viem, že miestnosť bude natlakovaná, koľko len chcem a úplne bez napätia, najnižšie tóny budú jasné, hmatateľne bude vykreslené vzrušenie z big bandu, orchestra alebo veľkých akustických vystúpení a budem mi jasné, že som absorboval zážitok z pôsobivého systému.

Aktívne / pasívne režimy

Strávil som dosť času všeobecným rozhovorom o výsledku použitia iných pasívnych reproduktorov s i.V4 Ultra, takže tomu nebudem venovať toľko, čo sa týka Whisper a DSW Clarity Edition. Za tie roky sa mi podarilo vylepšiť výkon basov reprosústav Whisper, ktorý vyzerá, akoby mohol vyfúknuť dvere z miestnosti, ale je skôr nežným obrom. Aj keď tento pár obsahuje osem 15" basových reproduktorov, sú umiestnené presne tak, aby znižovali vyžarovanie mimo bočné osi, čo umožňuje umiestniť Whispers bližšie k stenám. Skutočne som ich často umiestnil menej ako dve stopy od mojich bočných stien bez zjavných negatívnych účinkov.

Hlavné zlepšenie, ktoré priniesol i.V4 Ultra, čo sa týka basov, nebol zmysel pre rozšírenie hlbších frekvencií, pretože sa domnievam, že monobloky Pass XA200.8 boli v tomto ohľade rovnako dobré, ale hlavne v kráse a presnosti. Veľmi rád počúvam basové linky vykreslené zreteľne v hudbe, a keď sú zaoblené a zlúčené do takej miery, že sú menej zreteľné, nie som šťastný. I.V4 zobrazil napnutejšie basy pri akejkoľvek hudbe, ktorú som hral. Je ľahké dosiahnuť dopad pomocou ôsmich 15" ovládačov, ktoré pracujú pasívne, ale je ťažké dosiahnuť súdržnosť, ako dvojica 15" meničov. Rozlíšenie, dokonca aj pri nižších frekvenciách, je silne predajným artiklom technológie ICEedge, pretože Whisper mal čistejšie basy, ako som dosiahol u mnohých typických vežových reproduktorov, najmä u pasívnych žiaričov. Myslím si, že basy boli rovnako čisté, ako 11 palcové reproduktory audio technológie Vapor Audio Joule White. To sa historicky nestalo pri zosilňovačoch s elektrónkami a dokonca ani Solid State zosilňovačoch (tranzistorových). I.V4 Ultra sa vyniká v mnohých ohľadoch a jemné a pôsobivé basy / LF sú potešením.

Iconoclast od spoločnosti Belden Cables sú perfektnou voľbou pre tento výnimočný zosilňovač. Whisper nikdy neniesol také rozlíšenie a teplo súčasne. Zvyčajne sa reproduktory nakláňajú jedným, alebo druhým smerom, takže som sa občas pri zvláštnom vybavení uchýlil k zmiešaniu značiek reproduktorových káblov na troch sadách vstupných konektorov, basových, stredných a vyškových. Páskové vyškové reproduktory môžu občas pôsobiť dopredne s drsnejšou hudbou, ale s i.V4 Ultra sa to jednoducho nestáva. Mimoriadne rozlíšenie, ktoré poskytuje zosilňovač, premení vyškové tóny na izolovaný mikropříbeh s dejom vo vnútri nahrávky. Preto sú výšky menej laserové, ale viac ako LED rozptýlené svetlo, obaja majú intenzitu, ale stupeň zaostrenia je rozdiel medzi rezaním a osvetlením.

S každým vylepšením zosilnenia sa potvrdzuje správny výber meničov Billa Dudlestona pre jeho reprosústavy. To, čo sa očiam môže javiť ako rôznorodá zbierka reproduktorov, ktoré nemôžu fungovať správne, sa stáva čoraz plynulejším a model i.V4 Ultra ich priťahuje bližšie, ako kedykoľvek predtým, ale nerobí z nich mišmaš. Dajú sa tieto výsledky vylepšiť? Pred rokmi, keď som prvýkrát porovnával výsledky crossoveru s aktívnym Waveletom, v režime pasívnych reproduktorov, som dospel k záveru, že všetky veci sú podobné (alebo veľmi blízko), ale aktívne nastavenie bolo lepšie. Keď však došlo k výmene komponentov v ktoromkoľvek systéme, výsledky neboli konzistentné. S konkrétnymi sadami komponentov by pasívne nastavenie mohlo zatieniť aktívne nastavenie. Teraz, po rokoch, so zosilňovačom, ktorý by som neváhal nazvať extrémom, sa vraciam k tomuto porovnaniu, aby som nezakotvil staršie dojmy.

Aktívna prevádzka

Nenastavil som Legacy Audio Wavelet s XLR káblami profesionálnej kvality dodávanými spoločnosťou Legacy, ktoré sa zvyčajne používajú pre reproduktor, ale použil som tri sady Iconoclast od spoločnosti Belden 4 x 4 Generation 2 Ohno CCC XLR Interconnects a súvisiace SPTPC (postriebrené) Káble reproduktorov, oba špičkové modely. Pri dokončovaní ich kontroly som pracoval s káblami Iconoclast a posledným rečníkom bol Whisper, takže káble boli pripravené na pasívnu prevádzku. Hlavným dôvodom bola dôslednosť hodnotenia; správne porovnanie nie je odpojiť káble, ale použiť rovnaké, aj keď sa režim reproduktorov zmení. Okrem toho to zaistilo najvyššiu kvalitu zvuku z oboch prevádzkových režimov.

Prvý zážitok, ktorý sa mi dostal do uší, keď som zapol systém s reproduktormi v aktívnom režime, bol ten, že v nastavení bolo niečo iné, aj keď nehrala žiadna hudba. Nepočul som zjavný hluk, ale pocit, že sa zmenila úroveň energie, bol takmer hmatateľný, takmer ako jemná tlaková vlna. Faktor pokoja bol narušený, pasívny systém bol inertný, ale aktívny systém mal kinetický potenciál. Aj tak som nedokázal zistiť zjavný

hluk. Bol to takmer taký výrazný pocit, ako vstúpiť do inej miestnosti. Pochybujem, že väčšina ľudí by túto skúsenosť mala, pretože moja izba má o 8 dB nižšiu hladinu okolitého hluku, ako väčšina pokojných domov. Zdá sa, že s prechodom od crossoveru (výhybky) bola spojená nejaká udalosť na veľmi nízkej úrovni a myslím si, že je to kvôli zvýšenému zisku. V tretej relácii bola postupnosť zapnutia a dojem zo systému pohodlný, bez toho aby sa líšil od pasívneho nastavenia. Bude zvedavosťou vrátiť sa k pasívnemu nastaveniu a zistiť, ako to udrie do mojich zmyslov pri prvom spustení.

Prvé okamihy počutia reproduktora boli výrazne odlišné, a to predovšetkým v dôsledku skoku v rozlíšení, zvýšenej svetlej výšky a zvýšenej dynamickej kapacity. V tomto nastavení sa zmenilo niekoľko vecí, čo sa komponentov týka, veľa z nich sa vyskytlo vo Wavelete, ktorý spracováva funkcie DAC, predzosilňovača, procesora a korekcie miestnosti. Neočakávalo sa, že to bude porovnanie medzi dvomi jablkami, pretože sa zmenilo celé riadenie signálu od DAC, až po amplifikáciu. Preto s týmto nastavením nemôžem hovoriť v absolútnom zmysle slova, čo je lepšie, aktívne, alebo pasívne.

Audiofili by mali rozpoznať inherentné problémy pri vyvodzovaní pevných záverov medzi aktívnym a pasívnym systémom, ale často to tak nie je. Vidím opakujúce sa diskusie na fórach jednotlivcov, ktorí buď odporúčajú aktívne reprosústavy, alebo tvrdia, že prešli na aktívne reprosústavy z inej značky s pasívnymi sústavami. V súvislosti s takýmito prípadmi nie je možné s určitosťou nič zistiť, okrem toho, že majiteľ uprednostňuje jedno, alebo druhé. Je mylné tvrdiť, že také porovnanie dokazuje, že systémy aktívnych reproduktorov sú lepšie. Systémy, ktoré vyrábajú s rovnakým reproduktormi, sú bližšie typom podmienok potrebných na správne vyhodnotenie. Malo by byť zrejmé, že existuje potenciál, že ktorýkoľvek pasívny reproduktor môže prekonať, ktoréhokoľvek aktívny reproduktor. Túto skutočnosť oceňujem, keď používam i.V4 Ultra s pasívnymi reproduktormi. Neverím, že malý aktívny monitor prekoná reproduktor, ako Salk Audio SS 9.5 (testované) pomocou zosilňovača i.V Ultra. Iba porovnanie by povedalo definitívnu odpoveď, ale je neodôvodnenou perspektívou dať pozitívny predpoklad aktívnym reprosústavám bez porovnania. Takéto vyjadrenia sa robia pravidelne, čo ukazuje, ako ďaleko od reálneho zistenia je v tejto veci prevaha komentárov.

Viac linearity pri aktívnom režime

Jedným z aspektov, pri ktorom sa zdalo, že pri prechode z pasívnej do aktívnej prevádzky dôjde k úchvatnému javu, ako súdržnosť vyziareného poľa zo sústavy reproduktorov. A ďalším javom, je zlepšenie rozlíšenia . Typicky, keď sa rozlíšenie zvyšuje, zdá sa, že sa meniče/reproduktory spájajú lepšie, ale v tomto prípade som cítil, že moje uši priťahujú viac jednotlivé meniče, ako keď bežím v pasívnom režime. Zmena nebola nepríjemná natoľko, aby ukončila môj aktívny posluš, ale vyžadovala si určité úpravy. Jemnejšie detaily však nevyžadovali úpravu.

Pretože audio systémy, ktoré som v priebehu rokov vybudoval s Whisperom, sa zlepšovali, venoval som pozornosť najmä basovému výkonu, čiastočne preto, že som s reproduktormi pracoval prvýkrát. V prípade tejto veľkej vežovej sústavy, mal som pocit len miernych basov. Keď som zdvihol úroveň reťazca komponentov a káble, basový výkon sa zlepšil, čo sa prejavilo hlavne v artikulovanejšej reprodukcii basovej linky elektrických aj akustických basových nástrojov. Teraz prichádzajú oveľa jemnejšie detaily, sleepu, dotykov a posúvania prstov pozdĺž krku nástrojov. Je počuť, že elektronické linky majú charakter, namiesto toho, aby to znelo, ako ploché vyvrhnutie tónu. Kusy hudby, ktoré prekrývajú LF efekty a ktoré predtým zneli ako bahno, alebo skreslenie (myslel som si, že sú v nahrávke), sa teraz javia ako vrstvené fakty, dokonca aj pod 25 Hz! Keď sa vynaloží úsilie na doladenie jemností spodného pásma, človek si uvedomí, že skladatelia a umelci nezanedbávali rozsah suterénu !

Charakter aktívneho nastavenia mi pripomenul niektoré káble, ktoré sú sústredené na stredné pásmo a zdôrazňujú výšky. Nerobte to nesprávne ! Nehovorím, že prejav aktívnych repro bol posunutý o niečo vyššie, alebo prenikavejšie . Bol však mierne zvýraznený vo výškach a o chl p menej zvýraznený na stredoch a stredných basoch, ako Salk SS 9.5. SS 9.5 , ktorý ale musel ukončiť pôsobenie pre svoju úroveň svojej tembrálnej kvality. Keď som prepol reproduktory, došlo v tomto ohľade k určitému posunu v pasívnom použití a k ďalšiemu jemnému posunu v rovnakom smere pri aktívnej prevádzke. Prvý, alebo druhý deň

počúvania som mal obavy, že toho bolo na môj vkus príliš a myslel som si, že budem musieť pristupovať k softvérovému diaľkovému ovládaniu Wavelet, aby som mierne upravil korekcie reproduktorov. Ale keďže som tomu dal viac času a pustil som si s ním širší výber hudby, rozhodol som sa, že je to v súčasnom prostredí prijateľné. Dodám, že nebudem znovu popisovať fungovanie softvérového diaľkového ovládania Wavelet, dostupného online prostredníctvom Bohmer Audio, pretože som sa mu podrobne venoval v predchádzajúcich článkoch týkajúcich sa reproduktora Whisper. Táto recenzia sa zameriava na zosilňovače, a práve tu zostane zameranie.

Existuje jedna konkrétna úprava reproduktora, ktorá sa časom osvedčila pri otváraní zvukovej scény a získaní tých najlepších zážitkov z reproduktorov, či už v pasívnom, alebo aktívnom režime. Zahŕňa demontáž zadnej krycej mriežky s rámom, ktorá je umiestnená na vrchu, vzad vyžarujúceho basového reproduktora a zadnej časti reprosústav. Aby sa preukázalo, že gril má okamžitý (zvyčajne negatívny) vplyv na výkon reproduktora, bol by to dobrý príklad. Zvykol som si mriežky v tvare škatule, umiestniť do predných rohov miestnosti, ktoré z nich vytvorili kvázi rúrové pasce. Tento manéver otvára vyžarovanie reproduktora tak, aby umožňoval odrazy od prednej steny a zvuk zaplnil nuansami, vďaka čomu znie zvuk reproduktora skôr ako v kvázi otvorenej ozvučnici a zároveň vylepšuje rozhranie medzi reproduktormi v oblasti basov. Ak je to kombinované s mojím ďalším nastavením, ktoré je vždy v hre - podložkami pod zadnou časťou podstavy reproduktora, aby sa predná ozvučnica naklonila dopredu tak, aby boli basové reproduktory v rovnakej vzdialenosti od mojich uší, mám istotu fajnovejšieho posluchového zážitku.

Nebojte sa aktívnej verzie reproduktorov Legacy teraz, keď je tu ICEedge.

Na mnoho rokov som sa odhlásil z plne aktívnych verzií reproduktorov Legacy z jedného dôvodu. To, že som cítil, že interne používané zosilňovače ICEpower neboli kalibru, ktoré som celkovo požadoval, ako dlhodobé riešenie podľa mojich preferencií. Predchádzajúce zosilňovače triedy D jednoducho nedosahovali také dobré výsledky, ako triedy A a A / B a nebol som ochotný obetovať výber zosilňovača pre pohodlie a mierny prínos pre výkon, pretože som vedel, že v blízkej budúcnosti bude zastaraný.

Toto rozhodnutie považujem za potvrdené, pretože i.V4 Ultra ukazuje, ako dramaticky vylepšil ICEpower svoj vlastný dizajn. Úroveň výkonu je teraz na mieste, kde sa kupujúci, ktorý sa menej obáva dlhodobých zmien, ale chce začať na mieste bližšom k SOTA, celkom dobre rozhodne pre aktívny model reproduktora Legacy. Aby mal človek šancu na podobnú úroveň výkonu, musel by minúť neprímeranú sumu v pomere k cene reproduktorov. Objavuje sa atraktívna myšlienka - možnosť, že sa línia i.V Ultra bude s pribúdajúcimi rokmi vylepšovať, a v takom prípade je víťaznou voľbou ponechanie zosilňovačov mimo ozvučnicu reprosústav. Ak sa vydáte touto cestou, uistite sa, že sú vaše káble na 100% bezpečne zapojené a nenapadá mi žiadne lepšie odporúčanie, ako linka Iconoclast od spoločnosti Belden. Stále mám rád, keď zosilňovače sedia oddelene od reproduktora, aj keď sú v aktívnom režime x-over, kvôli možnostiam výmeny napájacích, prepojovacích a káblov reproduktorov. Realisticky však pre priemerného audiofila, ktorý nevytvára desiatky systémov, predstavuje zosilňovače zabudované do reprosústav v plne aktívnej verzii, presvedčivou voľbou.

Rovnako ako v minulosti, výsledky nie sú úplne predvídateľné

Vrátil som sa do pasívneho režimu x-over/ výhybky reproduktora a urobil nejaké experimenty . . . = lepší zvuk ! Významnou zmenou bolo vymenenie Exogal Comet za predzosilňovač COS D1 DAC + (skontrolované), v čase kontroly integrovaný DAC s hodnotou 10 000 USD. Týmto DAC som vytvoril zvukovo krásny systém a je to skvelá zmena za Comet, pretože je prirodzene teplejšie znejúci, bez straty rozlíšenia. Ak je nové nastavenie sirupovité, s príliš veľkým teplom a nedostatkom detailov, siahnem po Comete, a ak mám niečo skrotiť, vložím D1. S dvoma DAC existuje riešenie pre každý reproduktorový systém. Vo svojich predchádzajúcich článkoch som poukázal na to, že nadradenosť pasívneho, alebo aktívneho režimu x-over pre Whisper závisí od konkrétneho použitého vybavenia. To sa opäť ukázalo, ako správne, pretože som zistil, že zosilňovače COS D1 a i.V4 Ultra vo faux mono režime, z ktorých jedna jednotka poháňa každý reproduktor s jedným kanálom, sú najlepším výsledkom z týchto troch.

V tomto vyššom pasívnom nastavení MSRP bolo rozlíšenie opäť navýšené, ale bola tu však významná nevýhoda. Je zrejmé, že makrodynamická obálka sa zmenšila, basy boli opäť zmiernené v súlade s

predchádzajúcim pasívnym reproduktorovým systémom. Záhadná kinetická sila, ktorá umožnila basovým ovládačom rozbehnúť sa s menšou námahou, sa zmenšila. V dolnej časti bolo vylepšenie o chlp menšie, ale vyššie to znelo o niečo plnšie. Od stredného pásma až k výškam, hrali reproduktory prezentnejšie. Zosilňovač podporoval reproduktorové káble takto: jeden pár reproduktorových káblov Iconoclast TPSPC s vidličkami bol pripojený na stredné a výškové pásmo, zatiaľ čo banány boli umiestnené na basové konektory. Basy mala svoj vlastný (integrovateľný) zosilňovač a stredy / výšky boli bi-wired, spojené na ďalšiu sadu výstupov zosilňovača, čo malo za následok dva kanály poskytujúce tri sady reproduktorových káblov do reproduktorov (aby sa zabránilo kombinovaniu kanálov). Pre tento systém by som ideálne použil šesť zosilňovacích kanálov, limitujúcim faktorom však bol COS D1, ktorý mal iba jednu sadu výstupov pre XLR alebo RCA. Použil som káble Audio Sensibility Y na rozdelenie signálu, aby som získal celkovo štyri kanály, a následne musel byť jeden kanál i.V4 bi-wired, aby poháňal dve sady vstupov Whisperu.

V prehľade Iconoclast diskutujem o experimentovaní s banánmi a vidličkami a dochádzam k záveru, že vidličky sú počuteľne lepšie. V súčasnom nastavení s Whisperom som miloval pridanú prítomnosť v strednom pásme, ale potláčalo to mierne basy : basy sa zdali v porovnaní so stredným rozsahom nedostatočne silné. Porovnal som niekoľko rôznych kombinácií vidličiek a bi-wire a skončil som neočakávaným kombo: jedny vidličky, ktorý šli do basových konektorov, a banány do výšok (konfigurácia s dvoma káblami), a druhý reproduktor, ktorý poháňal jeden reproduktor káble s vidličkovými zakončeniami smerujúce k stĺpikom stredného pásma. Toto je neočakávaný výsledok, ale ukazuje, prečo je pre audiofilov potrebné vyskúšať všetky kombinácie a nepredpokladať, že je výsledok je daný. Nájst vynikajúci výkon tohto komba v pasívnom režime x-overu bolo dosť náročné, ale našiel som to! Môj záver, pokiaľ ide o používanie Waveletu, sa teda v priebehu rokov nezmenil. Je to vynikajúca jednotka typu „všetko v jednom“, ktorá môže prekonať akýkoľvek integrovateľný kombinovaný prevodník DAC alebo DAC a predzosilňovač, ale nenašiel som , aby dominovala nad všetkými kombináciami s rôznymi DAC prevodníkmi . Pravdepodobne by bolo treba hľadať a minúť možno dvojnásobok peňazí na zvukové zlepšenie, ale na želanie je aj to možné. Myslím si, že zvyčajne by to vyžadovalo komponenty vyššej triedy, napríklad COS D1 DAC. Majte tiež na pamäti, že by sa stratilo natívne spracovanie korekcie miestnosti pre Wavelet.

Nejde však o recenziu Waveletu, ale i.V4 Ultra. Pokiaľ ide o použitie v ktoromkoľvek z týchto kombinácií, neprichádzajú mi žiadne odrádzajúce slová. Vrelo odporúčam buď na prevádzkové, pasívne, alebo aktívne. Chápem, prečo Legacy chce, aby ich zákazníci reproduktorov spárovali so zosilňovačmi série i.V a i.V Ultra. Je to kombinácia, ktorú je skutočne ťažké poraziť za túto cenu.

More krásneho zvuku

Považujem prechod na roky 2020 - 2021 za jedno z najdôležitejších období v mojich 30+ rokoch, čo som audiofilom, je vznik dominantných zosilňovačov triedy D veľkým a vážnym činiteľom. Zosilňovač i.V Ultra hravo prekonal všetky ostatné recenzované zosilňovače bez ohľadu na žáner, čo je bezprecedentné. Vyzývam komunitu, aby si prezrela celý zoznam zosilňovačov, ktoré som skontroloval za posledných 14 rokov; nie je ani jeden z nich, ani jeden, ktorý by som radšej počul. Nejde len o to, byť o niečo lepší, alebo v niektorých ohľadoch mať výhody, ale skôr celkovú finančnú výhodnosť za vynikajúcu kvalitu zvuku.

Nie každý dospeje k rovnakým záverom a myslím, že dôjde k výraznému tlaku od konkrétnej skupiny audiofilov, ktorí sa vyhýbajú definícií v prospech zafarbenia. Model i.V Ultra upúšťa od nevýrazných podtónov, ale veľa poslucháčov zbožňuje tmavé, alebo sirupové sfarbenie, rovnako ako niektorí majú radi ozvučnicový zvuk reproduktorovej skrine. Nič sa na tom nezmení a preferencie budú ľudí aj naďalej tlačiť jednotlivé produkty ku konkrétnym žánrom. Celkovo však veľká časť komunity rýchlo uvidí výhody nových produktov triedy D, a to najmä i.V Ultra Amplifier.

V zbore zosilňovačov triedy D práve teraz dochádza ku konvergencii tých najlepších atribútov kvality zvuku! Trieda D, o ktorej sa hovorilo po celé desaťročia, že sľubuje, teraz tento sľub plní. Audiofili budú čoraz viac očakávať najlepšiu charakteristiku kvality zvuku vo všetkých žánroch v triede D. Pretože viac zosilňovačov triedy D zaplavuje showroomy a katalógy, a nebude otázkou, v ktorom žánri zosilňovač niečo získa, ale ktorý zosilňovač triedy D vlastníť.

Táto recenzia sa stala krkolomným vyhľadávačom, ktorý sleduje, aké reproduktory sa potom spárujú s i.V4 Ultra, pretože jeho sila, bezprostrednosť s jemnosťou, bohatým vrstvením a plnosťou tónov sa začína prejavovať s mnohými reprosústavami. Jeho milostný elixír výkonu sa dostáva do žíl a nemožno na neho zabudnúť. Jedna jednotka je dosť na to, aby ste slintali pri pomyslení, ako to bude znieť v budúcich zostavách. Dve jednotky, buď v aktívnom režime s Whispers, alebo v konfigurácii faux monoblock s pasívnymi reproduktormi, ma nútia premýšľať, akú zábavu s nimi budem mať potom? Do akej zábavy sa môžete dostať so zosilňovačmi i.V (najmä Ultra) od spoločnosti Legacy Audio ?

Redaktor: Dan Rubin

PRIDRUŽENÉ KOMPONENTY:

Zdroje signálu : Small Green Computer sonicTransporter AP I7 4T and SONORE Signature Rendu SE and systemOptique

Streaming Music Service: Tidal premium

DAC: COS D1 DAC + Pre; Exogal Comet DAC and Plus upgrade power supply and Pulsar IR receiver; Eastern Electric Minimax DSD DAC Supreme with Burson, Sonic Imagery and Sparkos Labs Discrete Opamps

Preamp: TEO Audio Liquid Preamplifier

Amps/ Zosilňovače koncové: Pass Labs XA200.8 Mono Blocks; Exogal Ion (PowerDAC, used exclusively with Exogal Comet DAC); Legacy Audio i.V4 Ultra (pair, totaling 8 channels)

Integrated: Redgum Audio Articulata; Kinki Studio EX-M1+

Speakers/ Reprosústavy : Aspen Acoustics Lagrange L5 MkII; Salk Sound SS 9.5 custom; Kings Audio Kingsound King III; Legacy Audio DSW Clarity Edition; PureAudioProject Trio15 Horn 1 ; Pure Audio Project Quintet15 Horn1; Kings Audio King Tower omnidirectional; Ohm Walsh Model F (restored)

Subwoofers: Legacy Audio XTREME HD (2)

IC's: Iconoclast 4x4 "Generation 2" XLR and 1x4 "Generation 2 RCA"; Clarity Cable RCA with Audio Sensibility Y Cables; Schroeder Method Audio Sensibility RCA; Schroeder Method Clarity Cable XLR with Audio Sensibility Y Cables; TEO Liquid Splash-Rs and Splash-Rc; TEO Liquid Standard MkII; Clarity Cable Organic RCA/XLR; Snake River Audio Signature Series Interconnects; (Schroeder Method, self-assembled with Audio Sensibility Y Cables used with several brands)

Speaker Cables: Iconoclast by Belden SPTPC Level 2 Speaker Cables; TEO Cable Standard Speaker; Clarity Cable Organic Speaker; Snake River Audio Signature Series Speaker Cables;

Digital Cables: Clarity Cable Organic Digital; Snake River Audio Boomslang; Silent Source "The Music Reference"

USB: Clarity Cable Supernatural 1m

Power Cables: Belden BAV (Belden Audio/Video) Power Cord; Clarity Cable Vortex; MIT Oracle ZIII; Snake River Audio Signature Series; Anticables Level 3 Reference Series

Komentár výrobcu (pridaný 21. 5.21):

Drahý editor,

S pokorou vám ďakujem za rozsiahlu kontrolu. Číta sa to ako formálne vyhlásenie, o príchode zosilňovačov triedy D a prináša to niekoľko významných výhod. Normy, ktoré stanovili napríklad James Bongiorno a Nelson Pass, ktorí priviedli tranzistory k uznaniu, alebo elegantné vylepšenia klasického elektrónového dizajnu od Kevina Hayesa netreba zatieniť. Namiesto toho musia byť uznané, ako trvalé a progresívne kroky v procese stavby zosilňovačov určených pre hudobný pôžitok. Naša vízia s dizajnom i·V bola z pohľadu ovládania reproduktora: Postaviť hodnotný zosilňovač, ktorý by poskytoval viac napätia a dostatočného prúdu na jeho zásobovanie. Urobiť ho tichým, odolným a čo najviac neutrálnym. Dynamika dnešných 24bitových nahrávok vyžaduje nižšiu hladinu šumu pri prehrávaní a viac energie pre tranzienty.

<https://legacyaudio.com/news/is-your-system-24-bit-ready>

Spoločnosť Legacy naďalej ponúka servis a náhradné diely na všetky naše produkty od prvého dňa našej 38-ročnej histórie. Patrí sem aj náš najnovší rad zosilňovačov i·V.

Môj dlhoročný priateľ a kolega v odbore, Doug Dale z CODA Technologies, (ktorý začal s Nelsonom Passom v časech Thresholdu), pre nás vyvinul a postavil prvotné a predchádzajúce zosilňovače Legacy a naďalej týmto vintage zosilňovačom ponúka trvalý servis a upgrady / vylepšenia.

Bill Dudleston Hlavný dizajnér, Legacy Audio