

the absolute sound



Shunyata Research Delta-X Power Distributor

Mea Culpa. How About You?

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Equipment Report

Most audiophiles have a level of tweakiness with which they're comfortable. Beyond that point, they begin to worry that the product or practice under consideration could be bogus—what self-proclaimed online “experts” gleefully condemn as “snake oil” or “pseudoscience.” For some listeners, so long as the loudspeakers are level and spiked, all is well. Others draw the line at four-figure interconnects or minute changes to a phono cartridge's VTA for different LP thicknesses. And then there are the folks who put acoustic dots on the walls of their listening room or spring for a machine to generate the Earth's fundamental resonance frequency. It's all OK—the audiophile endeavor should be a big-tent hobby.

Somewhere in the middle of this continuum are those who choose to address the quality of the electricity getting to their components. I must admit I'd not fully embraced the idea that clean power was that critical. Sure, I had purchased after-market AC cords and even a couple of power conditioners over the years, but mostly out of a sense of obligation. When I began this review, I was still using the power product I'd bought 20 years ago. It had eight components plugged into it but, increasingly, I was starting to get the feeling it was largely...ornamental.

I'd certainly heard about continuing progress in noise-reduction technology and was especially intrigued by Robert Harley's write-up, in TAS 366, of the Shunyata Research Everest-X AC power distributor (\$15,000) that sits at the top of the Washington-state manufacturer's new “X” line and, along with a couple of that company's power cords, was designated the magazine's 2026 AC Power Product of the Year. I was determined to revisit this product category, and Robert obliged me when the considerably less costly Delta-X model (\$4500) became available. I was put in touch with Grant Samuelsen, Shunyata's Marketing and Sales Director and, for 23 years, the right-hand man to Caelin Gabriel, the company's founder and engineering mastermind. We

discussed the specifics of my room and componentry, and, before long, three large boxes containing 13 smaller boxes arrived at my front door—by any measure, a boatload of Shunyata.

This is not the place for a detailed summation of the applied science that's been Caelin Gabriel's mission for close to three decades—and I'm definitely not the person to write it. For that background, I strongly recommend Robert's reviews of Shunyata products over the years (including last December's) plus the eminently readable technical articles on the company's website (shunyata.com) that are succinct and largely free of commercial gloss. Anyone with the slightest interest in the subject should at least budget the eight minutes needed to hear Gabriel and Samuelsen delineate the most basic principles underlying the company's approach to power conditioning ([youtube.com/watch?v=M-xkQZ4qlDc](https://www.youtube.com/watch?v=M-xkQZ4qlDc)). There are two fundamental ideas behind everything that Shunyata has developed, namely Dynamic

Transient Current Delivery (DTCD), which underscores the importance of instantaneous current delivery for an audio system to perform at its best, and attention to what the manufacturer refers to as Component to Component Interference (CCI), the tendency for electronic components to themselves generate noise that will, inevitably, adversely affect other nearby pieces of audio gear. “All twelve of Caelin's patents, the four or five that are pending, and all the custom-engineered parts and technologies fall into [these] two categories of intended purpose,” Samuelsen told me.

Six Shunyata innovations should be noted that function holistically to achieve the Delta-X's goals of purifying the power that gets to an electronic component to potentially lower audible noise and distortion. TAPc (Transverse Axial Polarization) passively reduces electromagnetic distortion. It has the subjective effect of significantly lowering the noise floor. QR/BB is a technology that provides a local energy reserve to “mitigate the inductive resistance of the AC power line without using coils, transformers, or capacitors.” It's said to improve a listener's experience in the realms of dynamics and timing by serving up lots of power on a demand basis. GPNR (Ground Plane Noise Reduction) filters ground noise to ameliorate high-frequency interference; Shunyata's NIC (Noise Isolation Chamber) also treats HF noise by utilizing a ferroelectric material to absorb unwanted hash. The manufacturer's CCI filter modules, implemented in multiple

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Specs & Pricing

Type: Eight-outlet AC conditioner

Maximum continuous current: 20A (U.S. version)

Maximum continuous current per outlet: 15A (U.S. version)

Isolation zones: Four

Noise suppression: Input to output (100kHz–30MHz) >50dB reduction;

zone to zone (100kHz–30MHz) >60dB reduction

Overcurrent protection: Hydraulic electromagnetic breaker

Wiring: 8-gauge ArNir® VTX™ buss system;

12-gauge ArNir® VTX™ wiring

Dimensions: 21" x 4" x 9"

Weight: 14.2 lbs.

Price: \$4500

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stages, prevent power-line noise from infecting neighboring electronics. Lastly, there's one proprietary methodology that's applied before you ever see your Shunyata power distributor. KPIP v2 (Kinetic Phase Inversion Process) is a technique—the manufacturer doesn't want to get into specifics—applied continuously for 96 hours to alter the structure of a conducting metal at the atomic level, greatly reducing the required break-in time.

The Delta-X is a rectangular box measuring 21" (W) x 4" (H) x 9" (D) and weighing in at 14.2 pounds. All the functionality is localized to the rear panel. Adjacent to a rocker switch that turns the unit on and off is a 20-amp IEC C19 AC jack to accept the power cord of your choosing to attach to a wall outlet. There is a total of eight NEMA 5-20R outlets, deployed in groups of two with each pair surrounded by the manufacturer's ingenious figure-of-eight-shaped cable support to reduce strain on the connection of a heavy AC cord—Shunyata's or anyone else's.

Because most of my electronics are located on racks along one side of my 15' x 15' space, with the two power amplifiers at the front of the room between the speakers, Grant Samuelsen sent two Delta-X distributors. Although the Delta-X is designed to sit on a shelf, it's permissible to orient the device with its front facing downwards, the outlets pointing up at the ceiling. This results in a smaller footprint, important to me because the Del-

ta-X must share its position with the center channel when a multichannel/immersive loudspeaker array is in use. It also allows easier access to the outlets.

The loudspeakers played throughout the evaluation period were Gershman Acoustics' superb new Symphoria (reviewed in Issue 372), a product that, without power conditioning, is already quite accomplished in terms of dynamic life, tonal accuracy, bass extension, and spatiality. Power amplifiers were Tidal Feros G2 monoblocks. A Sony X1100ES served as a disc transport; my usual Bae-tis Reference 5 server handled music files, local and streamed. Both digital sources sent their data to a Tidal Contros DAC/preamp. Analog cables were Siltech; digital interconnects were Wireworld (AES) and Apogee Wyde Eye SPDIF.

Along with the two Delta-X power distributors, Shunyata provided samples of four power cord models to use in the evaluation process: 1.75m Theta-X (\$998); 1.75m Alpha-X (\$2850); 1.75m Sigma-X (\$4000); 2.00m Omega-X (\$9000).

I started critical listening with the Shunyata gear sparingly deployed, with one of the Delta-X's supplying AC to the Feros G2s, the power distributor getting its current from the wall via one of the

Alpha-X NR cords. I do own one highly regarded AC product, a pair of Graceline Level-2 power cords built by the late Chris Sommovigo, and these remained in the system, connecting the Delta-X to the amplifiers. The effect of the Delta-X and associated power cord on sound quality was obvious and substantial. The most immediately apparent improvement was heard in the bottom octaves, with added extension, definition, and dimensionality in bass reproduction. Equally obvious within a few minutes was a profound drop in the noise floor—a blacker background—with dynamic contrasts presented in bolder relief. The whole listening experience was intensified, becoming more involving in the best possible way.

"OK," I told myself, "that's impressive. I guess we're done. Probably, whatever you do *first* to reduce noise in an audio system will be responsible for most, if not all changes that are noted, right?" Wrong. I would soon learn. There was much more in the way of improvements to come.

And what did I hear? Or not hear? The noise floor had been lowered further and my system was now the quietest I'd ever experienced—this in a building with 16 other units, in the middle of the seventh largest city in America. Vocals took on a remarkable purity, and orchestral string sections had more texture and heterogeneity. I was reminded, as I am when sitting in a concert hall, that a major orchestra's violin section has 25 to 30 players, employing instruments from different eras and makers. In the aggregate, they shouldn't sound like one gi-



ant violin and, with the Shunyata distributor and power cords, they didn't. Likewise, on jazz pianist Wayne Horvitz's 2001 album *Sweeter Than the Day*, it's easy to hear that his guitarist, Timothy Young, doubles the leader's keyboard melody during the "in-head" and "out-head" sections of *LTMBBQ*.

Although some, no doubt, will find the price of the Omega power cord appalling—I personally just acknowledge, without shame or bitterness, that they are simply out of my league, just the way I knew in high school not to ask certain girls to dance—its inclusion in the power cascade, replacing the Alpha-X from the wall to the Delta-X, undeniably revealed additional layers of musically relevant detail. With my favorite chamber music test track, the opening *Allegro amabile* of Anthony McGill and Gloria Chien's recording of the Brahms Clarinet Sonata No. 2, there was substantially more clarity to the characteristically dense left-hand piano accompaniment. The sense of McGill's instrument as a hollow tube with a vibrating column of air activated by the performer was as palpable as it is in person. Greater tonal nuance was also heard with larger-scale music. When first violins are doubled by piccolo in the wry first movement *Allegretto* of Dmitri Shostakovich's Symphony No. 15, an unpleasant shriekiness of that sonority (as produced by many audio systems) was considerably improved as the strings and highest-pitched wind instruments are better discriminated as independent sounds that had been combined by the composer with a specific effect in mind.

Returning to an Alpha-X AC cord for the Delta-X powering the amplifiers, I then fired up the second Delta-X, also with an Alpha-X cord. This provided current to the Tidal Contros DAC/preamp and Sony X1100ES, using the Sigma-X power cord for the Tidal Contros processor and a Theta-X for the latter. It was with treatment of the digital sources' power that the most dramatic effect on spatiality was heard. With a well-made pop recording—"Disappear in Plain Sight" off the latest album, *Crashbox*, from the Canadian band Monkey House, for example—there was better separation of instruments and "stacked" vocals. The soundfield became more dimensional, moving well out in front of the plane of the speakers. There's an Atmos version of this album that I know quite well and the sense of immersion I experience with 5.1.4 playback was approximated to a remarkable degree. It's less about envelopment than a kind of transparency that renders music with a clarity that makes attending to simultaneous musical events much less of an effort. All of this, I'm convinced, follows from the lessening of different varieties of electronic noise that had been obscuring low-level spatial cues present in the recordings all along.

The effects of Shunyata's technologies are additive and complementary. I've summarized my explorations with the Shunyata products not to suggest a universally applicable recipe for anyone else utilizing Shunyata gear. Quite the opposite. It's meant to emphasize that the multiple approaches to noise reduction derive from a deep understanding of the nature of electronic noise and its impact on the performance of the most ambitious audio systems. As most are aware, Caelin Gabriel's electronics are found not just in audiophile listening rooms and recording studios, but also in cardiac catheterization and electrophysiology labs where,

The better your system is, the more dramatic those results will be.

it turns out, electrical noise can actually become a life-or-death issue.

One could reasonably wonder about the difference in performance between the Delta-X and the Everest-X that serves in Robert Harley's system, given the price differential of over \$10k. It's not something I can speak to definitively as I didn't have the flagship model on hand for comparisons, but there is some objective information available that may provide some insight. The Everest, which is available in both a vertically oriented version with the form factor of a truncated pyramid and as a shelf-dwelling rectangular box, is twice as heavy as the Delta model; the enclosure has a larger internal volume and is fabricated from aluminum and steel, as opposed to aluminum only. The Everest sports CopperCONN outlets and has more robust vibration control along with larger QRBB and a larger TAPc module. The more expensive distributor also includes a technology called Power HARP, originally employed with speaker cables, that addresses "current resonances" within the component. The Everest-X gets eight days of KPIP v2 processing as opposed to the four allotted for the Delta-X. But it's worth noting, when comparing the published specifications, that the measured noise suppression, both input-to-output and zone-to-zone, is identical for the two models.

Mea culpa. Despite being a

card-carrying audiophile for a very long time, I'd not treated providing quality power to my equipment as a priority. The result of this inertia was that the integration of the Delta-X power distributor and a range of that manufacturer's power cords into my audio system brought about the single largest improvement in sound quality at one time I've ever experienced. To be sure, waiting so long to get serious about the various forms of electrical noise than can afflict an audio system made for some pretty low-hanging fruit. If you've not addressed an issue for 20 years, of course you'll have an impressive outcome when you finally do. And the better your system is, the more dramatic those results will be.

Having a Delta-X supply power to your system, using an Alpha-X power cord from wall to conditioner, and purchasing an entry-level power cord (or two) from Shunyata's wide range of offerings to connect the Delta-X to your power amplifier(s) can be accomplished for under \$10,000. I know this is far from a trivial expenditure but if you've built a system worth \$100k or more, I feel it's not unreasonable to allocate at least 10% of that amount to power-related products. For those of us without unlimited resources, for whom the Everest model is out of reach, Shunyata's Delta-X is a good place to start. You are very likely to uncover a level of performance with the gear you already own that was previously unsuspected.

I was guilty of minimizing the importance of incorporating advanced noise-reduction technology into my audio system. How do *you* plead? **tas**