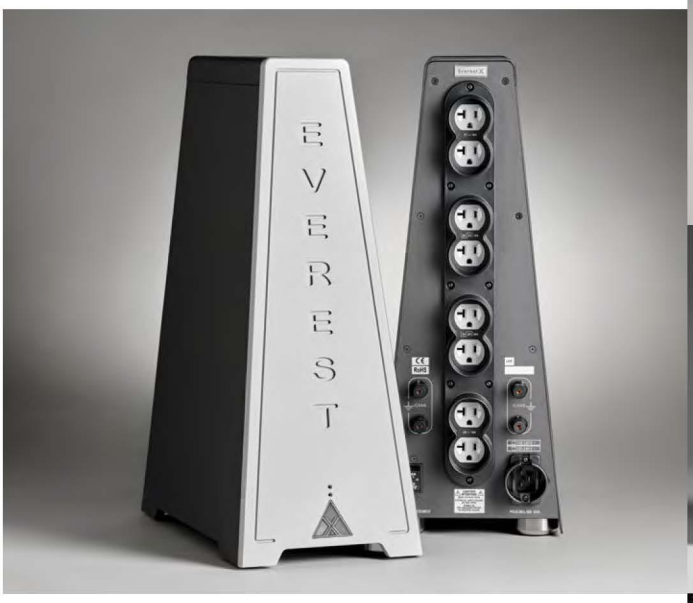

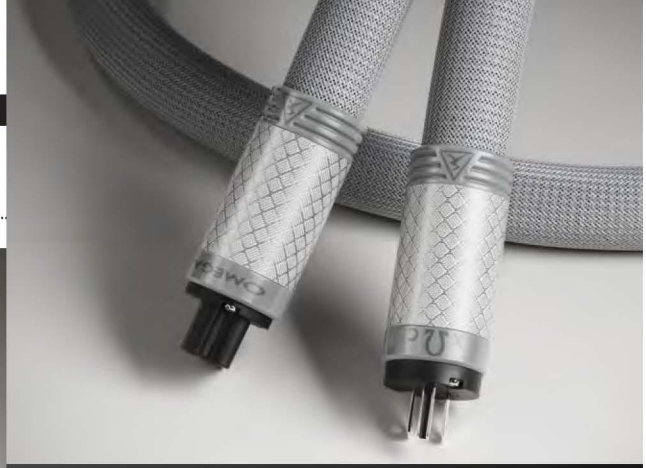

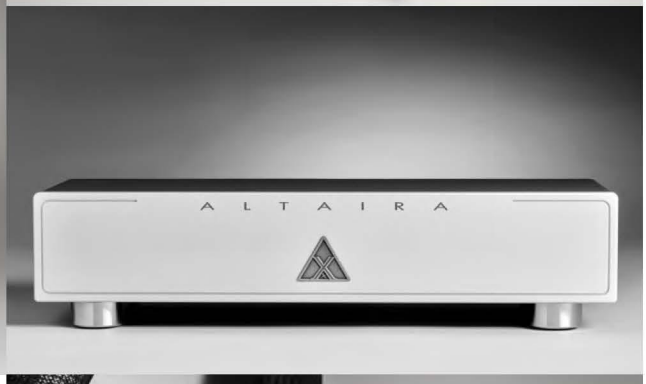

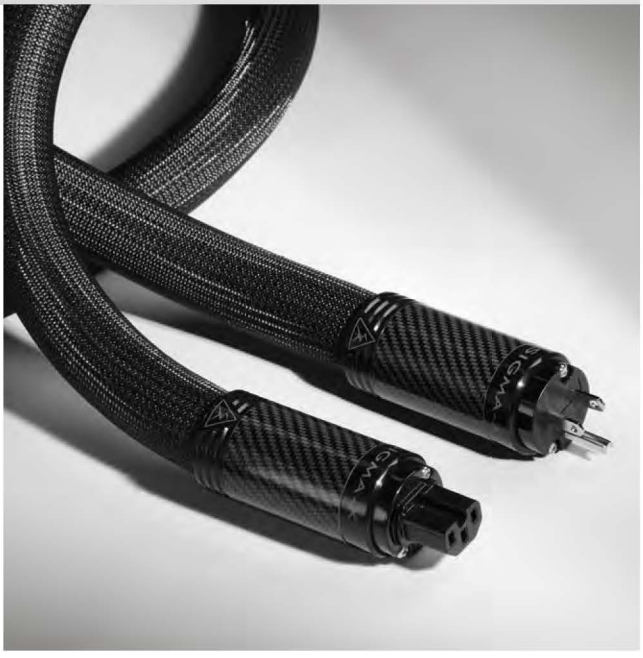

Shunyata Research Everest-X AC Power Distributor, Sigma-X and Omega-X Power Cords, and Altaira-X Noise Reducing Grounding Hub

X Marks the Spot

Robert Harley

One of the many things I admire about Shunyata Research is that every new product introduction or update delivers a substantial performance upgrade. Some manufacturers will "refresh" a product for a perceived marketing advantage even if they don't have any new technology to offer. But in my long experience with Shunyata, every new release represents a worthwhile sonic improvement and good value. Shunyata's continuing technology evolution is driven by founder Caelin Gabriel's inventive mind and relentless exploration of what is possible.

Shunyata's latest upgrade to its existing product portfolio is the "X" series—the Everest-X AC power distributor, Omega-X and Sigma-X AC power cords, and Altaira-X Noise Reducing Grounding Hub. I've been an enthusiastic user of the original Everest and Shunyata's power cords for many years and was eager to hear what the new models had to offer. More recently, I reviewed the Altaira Grounding Hub, and it immediately established itself as an essential component in my reference system.

Before we look at these new products, let's recap the Everest platform, the Omega and Sigma power cords, and the Altaira Noise Reducing Grounding Hub.

Everest Platform

The Everest is a vertical tower with a sloping front panel that narrows toward the top in a kind of truncated-pyramid shape (as seen from the front). This vertical form factor means the Everest sits on

the floor next to your equipment rack rather than taking up shelf space. The rear panel holds eight AC outlets, each supported by Shunyata's excellent cable-cradle system, which secures the AC cord to the power conditioner. An IEC C19 AC jack (20 ampere) accepts the AC cord that connects the Everest to your wall socket. The Everest isn't supplied with this C19 cord; you need to provide your own. Because this cord essentially supplies your entire audio system, you'll want to use a good one. An electromagnetic breaker switch turns the Everest on and off, but this switch is not a master power switch for your system. Rather, it is an over-current protection device.

The Everest features Shunyata's Ground-Plane Noise-Reduction (GP-NR) system, which consists of four grounding posts on the rear of the unit. The idea is that you run a wire from each of your components to the Everest's grounding posts so that all your equipment is grounded to the same electrical potential. Although most components (preamps, DACs, servers, etc.) lack a grounding post, you can connect the ground wire to a chassis screw and achieve the same effect. The Everest's grounding posts are, however, best deployed in conjunction with Shunyata's Altaira Noise Reduction Grounding Hubs (explained later in this review).

The Everest's technology is based on that of the Hydra Triton and Typhon conditioners, but with some advancements in technologies, construction, and materials. Each of the Everest's eight outlets features Shunyata's CCI (Component-to-Component Interface) filters—a series of multi-stage filters that removes noise. Noise is further reduced by Shunyata's patented NIC (Noise Isolation Chamber), a device that contains a ferroelectric material that absorbs high-frequency noise. The NIC was originally developed for the Hydra Triton. A different type of noise filter, called "CMode," reportedly reduces common-mode noise.

Another technology from the Triton/Typhon products is the patented QR/BB, a circuit that delivers additional instantaneous current for brief transients, reducing dynamic compression. Unlike many conditioners that have diminished ability to deliver high-current pulses, QR/BB is claimed to *increase* impulse-current delivery via a circuit that lowers the inductive reactance. The Everest's QR/BB device is three times the size of that in the Denali, Shunyata's previous flagship conditioner. This feature is especially useful when power amplifiers or integrated amplifiers get their power through the Everest, although all components benefit from the Everest's ability to deliver higher current peaks. Linear power supplies pull current from the wall in very short bursts (at the tops and bottoms of the 60Hz AC sinewave). If the conditioner restricts these instantaneous current surges, the component will be starved for power, compromising musical dynamics. In designing the Everest, Shunyata relied on its proprietary test instrument, called the Dynamic Transient Current Delivery (DTCD) analyzer, to measure instantaneous current flow through low-impedance conductors and contacts.

The outlets are Shunyata's CopperCONN, with contacts and conductors made from thick pieces of solid high-purity oxygen-free copper. They also provide better grip on the blades of an AC cord plugged into them than conventional AC outlets. I installed these outlets in each of the five dedicated AC lines that run to my listening room when I built the room. The Everest's internal wiring is Shunyata's VTX (Virtual Tube) conductors, made from certified OFE C10100 copper, and fashioned into hollow tubes to reduce skin effect. The conductors are treated with Shunyata's KPIP (Kinetic Phase-Inversion Process), which reportedly minimizes the need for break-in, and improves the sound. Many of the components are cryogenically treated in Shunyata's own cryo lab. Finally, the chassis and internal structures are treated with vibration-damping panels, and the outlets are physically de-coupled from the chassis for further vibration isolation.

There are two key differences in the Everest X compared to its predecessor. The first is the patent-pending TAPc, an improved version of the TAP technology originally developed for the company's signal conductors. TAP is an initialism for Transverse Axial Polarizer, a technology that reportedly reduces a type of distortion in signal transmission by blocking the longitudinal electromagnetic waves that interfere with the perpendicular wave that transmits the wanted energy down the conductor. In the original TAP, 22 gold-plated copper discs surrounded the conductor to block this longitudinal wave. This technique is unique to Shunyata. TAPc is smaller, denser, and more effective. Any Shunyata product with the "X" designation employs TAPc.

The second proprietary Shunyata technology in the Everest-X is HARP, a technology first developed to reduce resonances in loudspeaker cables. It is used for the first time in the Everest-X. HARP reportedly operates as a current-mode diffraction device, breaking up current resonances much the way an acoustic diffusor disrupts standing waves in a room.

The Everest-X has a host of small material and metal refinements, including platinum-plated contact terminals.

Sigma and Omega Power Cords

The Sigma is Shunyata's second-from-top power cord, with the Omega as the company's flagship cord. They both feature a mix of silver and copper conductors, with an inner silver conductor surrounded by a concentric ring conductor made from high-purity copper. A fluorocarbon insulation separates the conductors, with the special insulation material minimizing dielectric absorption and re-radiation.

All Shunyata Research AC power cords (and the internal wiring in their power conditioners) are treated to a proprietary process called "KPIP v2" (Kinetic Phase Inversion Process) that reportedly "refines" at an atomic level the conductor metals. The result is reportedly better sound along with reducing the need for burn-in. My colleague Kirk Midtskog has previously reported comparing AC cords that were identical except that one had been KPIP processed. He found that the KPIP-processed cord sounded smoother and more relaxed. During a factory visit a few years ago (see the YouTube video of my visit and interview with Caelin Gabriel), I saw KPIP in action. The

company doesn't reveal much about the process, but I saw large spools of raw wire connected to powerful signal generators that send very high-level pulses of a specific frequency and duration through the conductors over a period of four days.

Sigma-X and Omega-X employ TAPc, see above, and is responsible for the sonic differences in the "X" and its predecessor.

Altaira Noise Reducing Grounding Hub Platform

Shunyata Research's Altaira Grounding System is a new product category that will be unfamiliar to most audiophiles—it was certainly new to me. The system is composed of one or more passive "hubs" to which you connect the ground terminals of your components via specially made cables that are part of the Altaira line. The hubs are small metal chassis, each with six equipment-grounding posts on the rear panel—there are no front-panel controls or indicators. A seventh ground post connects to a ground terminal on your power conditioner or to the ground pin of an AC outlet via an adapter plug. The Altaira ground cables feature interchangeable terminations so that they will work in any system and adapt to component upgrades.

The idea behind Altaira is that the chassis grounds of all components are noisy; draining this noise from the components can improve sound quality. If some of your components' grounds are at a different electrical potential (voltage) than other components, and those components are connected through interconnects, a small amount of electrical current will flow along the ground path provided by the interconnect. We hear this current flow as noise and hum. Preventing these noise-inducing "ground loops" is why I specified that each run of 10AWG to the five dedicated AC lines to my listening room be of the same length. With identical length runs, the ground potential will be the same in each line.

Connecting the chassis of all the components in a system to a true ground reference is hardly a new idea. In fact, it's been standard practice in the telecommunications, broadcast, and professional-audio industries for decades. I've installed and wired racks of pro-audio gear in which a thick braided cable runs from each component's chassis to the metal rack which is then connected to earth ground. Shunyata has taken this concept to the next level by channeling chassis noise to a ground reference with an ultra-low-impedance path and then dissipating that noise through the company's proprietary filtering technology within the hubs.

Shunyata's Altaira grounding hub concept has been advanced in the new X version. In the original, two versions are offered, one for connecting analog components (Chassis Ground Hub) and one to isolate digital components in more complex systems (Signal Ground Hub). The Altaira-X obviates the need for two different models by incorporating within one chassis the ability to connect both signal and chassis grounds as well as both analog and digital components. The X version offers eight grounding posts compared to six for the original Altaira. The Altaira-X is significantly larger and heavier than the Altaira because, surprisingly, each of the Altaira-X's posts contain the same circuitry as an entire lower-priced first-generation Altaira.

Listening

I incrementally replaced my existing Everest conditioner, Omega and Sigma power cords, and Altaira grounding hubs with the new "X" versions over the course of about a month, starting with the Everest. The Everest-X produced a deeper background along with a heightened impression of instruments existing in three-dimensional space. The soundstage was set a bit farther back, yet the sense of immediacy and presence increased. The air around instrumental images was more tangible, and the entire stage took on a greater dimensionality. The overall sense of size also increased, and I could more clearly hear the outlines of the hall. Instruments at the rear of the stage were portrayed more vividly, with greater clarity and resolution of timbre and microdynamics. I also had a greater impression of images being even more detached from the loudspeakers.

The X version had a superior rendering of bass, with greater impact, depth, texture, and dynamic authority. The entire low end had greater muscularity and weight.

Low-level resolution also increased, revealing very fine details of timbre and micro-dynamics that contributed to a sense of realism.

I had a preview of the Omega-X QR power cords before I installed them in my system for a long-term evaluation. Grant Samuelsen of Shunyata was visiting and brought with him two samples of Omega-X QR from the first production run. These were his evaluation samples destined for his own system, but for fun, we replaced the two Sigma QR AC cords powering the Wadax Reference DAC with the Omega-X QR cords. The Sigma QR cords are excellent, so I was taken aback by just how much the Omega-X QR, on just one component, improved

Why AC Power Conditioning?

LET'S review the goal of a power conditioner. In addition to distributing power to multiple components, an AC conditioner should block noise on the AC line from getting into your audio components. Most people think that this is a conditioner's primary function. But a conditioner's most important job is preventing noise from getting from one component to another. Think of a digital component, filled with chips that switch high-speed digital signals on and off. This switching creates noise that gets on the component's ground plane. The AC cords in your system are the conduit for that noise, conducting the noise from one component into all your other components, degrading performance. A good conditioner blocks and dissipates this noise, isolating the components from each other.

Specs & Pricing

Everest-X
Type: Eight-outlet AC conditioner
Maximum continuous current: 30A (US version)
Maximum continuous current per outlet: 15A (US version)
Isolation zones: Six
Noise suppression: Input to output (100kHz–30MHz): > 50dB reduction; zone-to-zone (100kHz–30MHz): > 60dB reduction
Over-current protection: Hydraulic electromagnetic breaker
Wiring: 8 gauge ArNi® VTX™ Buss system; 10 gauge ArNi® VTX™ wiring
Dimensions: 8" x 20.75" x 14.75"
Weight: 34 lbs.
Price: $15,000

Omega-X QR Power Cord
Price: $12,500 (Omega X XC is $9000)

Sigma-X and Sigma X QR Power Cords
Price: $4000 (Sigma-X XC/NR); Sigma-X QR is $6500

Altaira-X Noise Reducing Grounding Hub
Number of ports: 8
Dimensions: 16" x 3.9" x 7.5"
Weight: 13.5 lbs.
Price: $9900 (X Ground Cables are $2000 each)

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Associated Equipment
Loudspeakers: AlsyVox Michelangelo, Wilson Audio Chronosonic XVX with dual Wilson SubSonic subwoofers, ActivXO crossover.
Analog source: Basis Audio A.J. Conti Transcendence turntable with SuperArm 12.5 tonearm; Air Tight Opus cartridge; Esoteric Grandioso E1 and Moon 810LP phonostages; DS Audio ST-50 stylus cleaner, Levin record brush, Degritter ultrasonic LP cleaner
Digital source: Wadax Reference DAC, Wadax Reference Server, Reiki Audio SuperSwitch Ethernet switch
Amplification: CH Precision L10 Dual Monaural linestage; CH Precision M10 Dual Monaural power amplifiers, Berning/Hi-Fi One Reference SET
Support: Critical Mass Systems Olympus equipment racks and Olympus amplifier stands; CenterStage2 isolation, Harmonic Resolution Systems (HRS) VXR equipment rack, Ayra Audio RevOpods isolation
Cables: AudioQuest Dragon interconnects, AudioQuest Dragon Zero and Dragon Bass loudspeaker cables
Accessories: The Chord Company GroundArray
Acoustics: Acoustic Geometry Pro Room Pack 12, ASC 16" Round Tube Traps
Room: Acoustic Sciences Corporation Iso-Wall System

my system's sound. For starters, the bass was more robust, fuller, denser in texture, and had greater weight. The reproduction of acoustic bass was more realistic, with the Omega-X better creating the illusion of a large wooden instrument between the speakers. The instrument's tone color, pitch definition, and dynamic shadings were all more realistic, contributing to the greater impression of presence and lifelike immediacy. Bottom-end dynamics were also improved, with greater dynamic impact on bass drum and even the attacks of notes played by electric bass. I could more easily hear exactly what the bass player was doing. The combination of greater weight and higher precision of pitch, timbre, and dynamics made for an increased visceral involvement and sense of rhythmic flow. If you enjoy hearing how Ray Brown brings a powerful sense of swing to everything he plays on, you'll enjoy it more with the Omega-X QR in the system. I later installed Omega-X QR cords on the CH Precision L10 linestage. The Omega-X QR also delivered many of the virtues of the Everest-X—mainly a deeper background, higher resolution, a larger soundstage, and greater clarity.

The last of the new "X" components was the Altaira system. We replaced the six original Altaira grounding hubs and their ground cables with three Altaira-X units and X ground cables. All the Altaira's sonic benefits—smoother textures, greater clarity and definition, larger soundstage, enhanced sense of presence—were magnified by the Altaira-X. In fact, of the three upgrades (Everest-X, Omega-X, Altaira-X), I thought the Altaira-X delivered the greatest improvement. The Altaira-X rendered instrumental timbres with even greater liquidity, ease, and realism. A fine layer of grain was removed, revealing greater density of tone color and resolution of inner timbral detail. I also heard more body, weight, and textural density—and less metallic sheen. I could listen at louder levels without certain notes in the upper register affronting my ears.

Conclusion

These new "X" versions of Shunyata's already excellent Everest AC power distributor, Sigma and Omega power cords, and Altaira Grounding Hub are not merely a "mid-cycle refresh" but rather a significant advance of the company's fundamental technologies. They render a very similar improvement but to varying degrees. If forced to sum up that improvement in one word, it would be "clarity." The X components seemed to snap the music into focus and reveal myriad aspects of the performance that were previously obscured. The heightened impression of instruments existing in three-dimensional space is the X series' calling card. Replacing the original versions with the X versions took my system's performance to the next level with each upgrade. When deployed together, they play a huge role in my system's spectacular sound.

Whether you are new to Shunyata or upgrading from earlier models, I can heartily recommend the new "X" series. tas