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by Robert Harley

Shunyata Research Everest 8000 AC Power Conditioner & Omega XC Power Cord Review



As a long-time user of various Shunyata Research AC power conditioners and power cords, I've been fascinated to discover how the company's products have evolved with each new generation. In performance there's been unmistakable forward progress, with lower noise and an attendant increase in clarity, resolution, and soundstaging. But Shunyata's new flagship Everest 8000 power conditioner breaks this trend; rather than offering an incremental improvement, the Everest 8000 represents a significant leap in sound quality—one that redefines what's possible in AC power conditioning. I think it's no coincidence that the Everest benefits from some of the technologies Shunyata founder and designer Calin Gabriel developed for his AC power conditioners used in medical laboratories. A few years ago, a cardiologist who spent much of his time battling residual noise while looking at extremely low-level electrical signals in heart patients made a surprising discovery. The cardiologist, an audiophile who happened to use a Shunyata power conditioner in his home-audio system, speculated that if the Shunyata conditioner lowered the noise floor in his music system, it might confer similar benefits in his medical lab.

After plugging his lab equipment into the Shunyata conditioner, he was surprised and delighted to discover that the AC conditioner allowed him to more clearly see the heart's low-level electrical signals. He contacted Shunyata to share his experience, which eventually led Shunyata to start a whole new company, Clear Image Scientific, to design and manufacture AC power-conditioning devices for cardiac labs. The new company has grown exponentially, leading Gabriel to research and develop advanced new techniques to isolate, to an unprecedented

degree, sensitive medical equipment from AC line noise. Some of those techniques have now been deployed in Shunyata's AC conditioners for audio. How Clear Image Scientific sells its products says much about their efficacy; the company demonstrates the gear in a hospital for cardiologists, who can see for themselves the effect of reducing noise on the AC powerline.



Turning back to audio, 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. A blue LED, which is mercifully faint, indicates when the Everest is powered on. 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. Shunyata sent me its new Omega XC for this application, which costs nearly as much as the Everest (\$8000 vs. \$7000). 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. Shunyata offers grounding cables made from flexible stranded wire that's easy to work with. Ground posts are common on professional and telecommunications gear for good reason: 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. It's common in professional gear for every component in a metal rack to be grounded with a braided wire to the rack.

The Everest's technology is based on that of the Hydra Triton and Typhon conditioners, but with some new twists in technologies, construction, and materials. Before describing the Everest's design, we should 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 traveling 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 conduits for that noise, conducting it from one component to all your other components, degrading performance. A good conditioner blocks and dissipates this noise, isolating the components from each other.

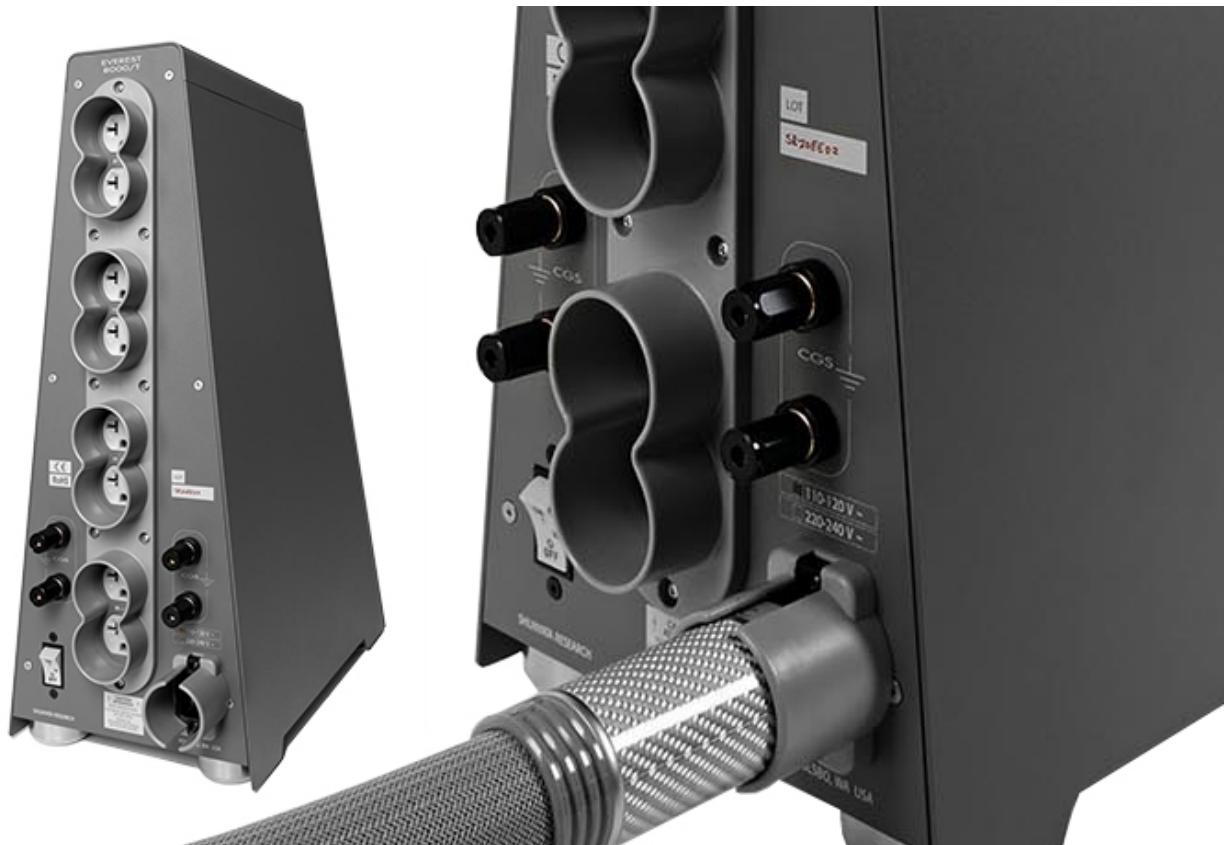
Each of the Everest's eight outlets features Shunyata's CCI (Component-to-Component Interface) filters—a series of multi-stage filters that removes noise. Noise is further reduced by Shunyata's patented NIC (Noise Isolation Chamber), a device that contains a ferroelectric material that absorbs high-frequency 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 QR/BB, a circuit that delivers additional instantaneous current for brief transients, reducing dynamic compression. Unlike many conditioners that diminish the 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 useful when power amplifiers or integrated amplifiers get their power through the Everest. Unlike a preamp or a DAC that draws a small amount of current continuously, a power amplifier pulls 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 amplifier 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 ArNi 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 eliminates 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 decoupled from the chassis for further vibration isolation.

I know that's a mouthful of alphabet soup, but illustrates that the Everest is packed with technologies that Shunyata has developed over the past 25 years, many of them patented.

The Omega XC power cord features Shunyata's VTX-Ag conductors that are made from an outer tube of purified copper surrounding a silver conductor. The cord has CopperCONN connectors encased in a carbon-fiber housing at both ends. Once assembled, the Omega XC is treated with the KIPP processing described earlier. Note that the step-up power cord, the Omega QR, incorporates noise-reduction technologies within the cable. Nonetheless, Shunyata recommends the Omega XC with the Everest. Both Omega Series cords are available in a range of carbon-fiber colors. I replaced the Hydra Triton and Typhon combination that I'd been using for a few years with the Everest to power my front-end equipment. My equipment racks are at the back of the room behind the listening seat, and the power amplifiers are at the other end between the speakers. The power amps were plugged straight into the wall sockets.



When I've upgraded Shunyata's conditioners in the past, I've usually heard an incremental improvement in dynamics, soundstaging, and the rendering of instrumental timbres. But the Everest/Omega XC combination realized, by far, the most significant improvement in my system. The change in sound quality was more of a step function than an incremental advance. It's worth noting that my current system is extremely revealing of every change, good or bad.

Swapping in the Everest and Omega XC brought out the best in my system, heightening those qualities I value. The most immediate improvement was in the way the soundstage expanded in all dimensions, particularly in depth. Interestingly, the entire stage became slightly less forward and immediate, like moving from Row C to Row M. But at the same time, the spatial presentation became more three-dimensional, with instruments toward the back of the stage sounding much farther away. The apparent distance between instruments in the front and back of the orchestra expanded. A few minutes into *The Rite of Spring* (Eiji Oue, Minnesota, Reference Recordings, MQA at 176.4kHz) a contrabassoon plays a short, virtually unaccompanied passage. The Everest presented the instrument as way back in the orchestra, with very fine resolution of the reflections and reverberation that supply the brain with distance cues. Despite the slightly less immediate spatial perspective, the sense of vividness and tangibility increased.

But that's not what make the Everest/Omega XC so compelling. Rather, it was the way this new conditioner resolved the air and space between instruments, giving the sound a greater dimensionality that was closer to what one hears from live music. I could hear a more tangible sense of the cushion of air around each instrument, particularly on dynamic passages. The feeling of sound expanding from the instrument was more realistic. This impression was heightened by the tighter focus of the image itself, along with the greater delineation between the image and the air around it. This may sound like an esoteric analysis of a not-that-important perception, but this more realistic portrayal of instrumental images, the immediate space around them, and the greater space of the hall went a long way toward making me forget I was listening to a recreation of music. It was just more organic and lifelike. In addition, the finer spatial resolution and more vivid presentation of individual instruments made it easier to follow each instrument's musical line within the whole. The track "The Cowboys Overture" from

John Williams at The Movies (176.4/24 downloaded from Reference Recordings) took on much more sonic and musical clarity, with each instrument, section, and musical line more clearly resolved.

I've noticed that my colleague Andrew Quint mentions in his reviews a track that I also happen to like, and also use in evaluating equipment. "Back Row Politics" from Gordon Goodwin's Big Phat Band Act Your Age features three virtuoso trumpet players trading off extended, high-energy solos. After adding the Everest to my system, the trumpets had less glare, along with more richness, warmth, and body.

Finally, I heard an increase in dynamic impact, particularly in the bass. This is one of my system's strong suits, but the Everest took transient fidelity and visceral impact to another level of realism.

The Everest 8000 AC conditioner and Omega XC power cord are, in my view, the best components to come out of Shunyata Research, a company with a long history of developing great products. The Everest allowed the outstanding components in my system to perform at their highest level by providing them with an ultra-quiet and clean power source. The Everest 8000 and Omega XC have become essential parts of my reference system.

Specifications Everest 8000

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.