AUDIOSTREAM

Shunyata Research
Hydra Triton v3 Power Distributor
and Sigma NR / Alpha NR Power Cables

Hydra Triton v3
Device Type: Power Distributor
Inlet: IEC-C20
Outlets: 8 outlets
Dimensions (H x W x D): 6.5 inches (with feet) X 17.25 inches X 17.125 inches
Weight: 40 pounds

Sigma NR AC Cable
Length Evaluated: 1.75 meter; 20 Amp IEC (C19 Connector) and 15 Amp IEC (C15 Connector)

Alpha NR AC Cable
Length Evaluated: 1.75 meter; 20 Amp IEC (C19 Connector) and 15 Amp IEC (C15 Connector)

With Shunyata Research's release of the Denali Series power distributors last year, Shunyata had produced a power conditioner that had not only challenged other brands of AC conditioners, but their own top-of-the-line Hydra Triton v2 as well. While reviewing the Denali Series power distributors last September, I found that the Triton v2 was outperformed by the Denali in several areas including reproduction of the dynamic qualities of music. Shunyata Research now feels with the introduction of the Triton v3, that they have a power conditioner that will outperform their Denali Series, and rightfully assume its place as the best power distributor that Shunyata can build. Shunyata offers an upgrade program for Triton owners that will protect their previous investment. A Triton v2 to v3 is $1995. A Triton v1 to a v3 is $3500 (no CGS Grounding System).

New Features Found in the Triton v3 compared to the Triton v2

New CCI v3 filters
I recently asked several of my audiophile friends to describe what a good power conditioner should accomplish. All of them replied that blocking noise on the incoming AC line was the primary action of a successful power conditioner. Caelin Gabriel, chief designer at Shunyata Research, believes a serious issue is created by the noise generated by our electronic components that is reflected into other components at the conditioner. It is the task of an effective power conditioner to address this issue in addition to the incoming noise on the AC line. The CCI (Component-to-Component Interference) filter is a proprietary multi-stage filter that not only reduces RFI, but power supply generated interference. Shunyata believes that they can accomplish this filtering without transformers, coils, or large capacitors.

New QR/BB Modules
The QR/BB Modules were first introduced in the Denali Series. These devices enhance the perception of the dynamic qualities of music with amplifiers and other high-current electronics. They, along with other design features, help preserve peak current delivery to the components connected to the Triton v3.

From Shunyata:
"The QR/BB is unique in that it provides a local reserve of energy, or Coulomb charge, that mitigates the inductive reactance of the AC power line without using coils, transformers, or capacitors. The QR/BB acts as an instantaneous energy reserve when placed in-line with an AC power supply."

KPIP Processing
Kinetic Phase Inversion Process is a processing technique that significantly reduces the need for burn-in and cryogenic treatment in the Triton v3. Only a small number of parts are treated cryogenically thanks to KPIP.

SSF-50 Stainless Steel Feet
The SSF-50 feet, also available as an upgrade for other Hydra products, are milled from solid blocks of high- grade stainless steel and an energy absorbing polymer isolator. The Triton v3's chassis is optimized to dampen vibration. The SSF-50 Stainless Steel Feet eliminate the need to place the Triton v3 on a dedicated shelf or special optimized stand.

Vibration Control Panels and Gaskets
Shunyata takes vibration elimination in the Triton v3 very seriously. Using sub-miniature accelerometers that measure the effects of floor and airborne sound waves, the dampened steel and aluminum chassis is aided with energy absorbing footers, AC outlet gaskets, and chassis dampeners that reduce resonant vibration that has been found to degrade the sonic performance of the Triton.

Additional Features
I have extensively discussed the features found in the Triton v2 that have been carried over to the Triton v3 such as the NIC (Noise Isolation Chamber) that is filled with Shunyata's patented ZrCA-2000 compound whose function is to absorb and dissipate high-frequency noise. I am also happy to see that the Triton v3 includes the Chassis Grounding System introduced in the Triton v2. Please refer to my review of the Triton v2 or Shunyata's web site for further information concerning these and other features. Suffice to say, every component of the Triton v3 has been carefully selected even down to the hardware used to assemble the product. I was quite impressed with Shunyata's obsession with perfection in the Triton v2, and am happy to say that it continues in the Triton v3.

Associated Equipment Used in the Evaluation of the Triton v3

The Triton v3 was called on to power my Ayre Acoustics KX-R Twenty preamp and MX-R Twenty monoblock amps. An Ayre Acoustics QX-5 Twenty DAC was used as my digital source. Additional components used in the evaluation were the Sonore Signature Rendu SE and an SOtM tx-USBultra powered by the Sonore Signature Linear Power Supply. These products were also powered from the Triton v3.

I allowed the Asus laptop to stream to the Sonore Signature Rendu SE that directly fed the QX-5 Twenty via USB. I also experimented inserting the SOtM tx-USBultra USB enhancement device between the Sonore Signature Rendu SE and the QX-5 Twenty.

Music software used was Roon Server in an Asus G701VI laptop running Windows 10 Pro 64 with AudiophileOptimizer 2.20 beta 5 that served as my Roon Core. The Asus G701VI possesses an overclockable Intel Core i7 6820HK processor with 32 GB DDR4 2400Mhz SDRAM and a very fast PCIe Gen3 X4 NVMe SSD. This laptop has 3 USB 3.0 ports as well as a Thunderbolt port (USB type-C). An NVIDIA GeoForce GTX1080 with 8 GB VRAM processes video. This powerful video processor allows significant CUDA offload processing for use of the Signalyst HQPlayer. The Asus laptop was plugged into a Shunyata Research Hydra DPC-6 v2 distribution center to firewall the noise generated by the Asus computer from contaminating my AC line.

The Triton v3 was plugged into the wall with a Σ SIGMA HIGH-CURRENT IEC 20 (C19 Connector) AC cable and the new SIGMA NR IEC 20 (C19 Connector) AC cable.

To convince myself that I wasn't under a self-induced delusion, I listened to my Ayre Acoustic components plugged directly into the wall with their stock AC cords followed by the new NR Series AC cables.

The Sonic Experience Using the Triton v3
I have much to say concerning the improvements heard listening to my system using the Triton v3; especially when compared to the Triton v2. In fact, I was so impressed with what I was hearing with the Triton v3, the thought occurred to me that Shunyata Research could have justifiably given the Triton v3 a new name! Much of what I will be discussing will be the sonic comparisons experienced between the Triton v2 and v3, but generalizations can be taken from this discussion.

Dynamic Changes
The Triton v3 has made a major improvement in how this power conditioner handles dynamic changes when compared to the Triton v2. My Ayre Acoustics MX-R Twenty amps were more alive sounding powered from the Triton v3. The Ayre power amps now conveyed enhanced dynamic qualities with a transient quickness and impact that was previously lacking when powered from the Triton v2.

But it was not only my power amps that benefited from the Triton v3. My preamp, the Ayre Acoustics KX-R Twenty, was also dynamically improved when powered from the Triton v3. I removed the Ayre MX-R Twenty amps from the Triton v3 for part of this comparison with the Triton v2 to focus on the preamp. Both micro and macro dynamic changes emerged from the KX-R Twenty preamp with a new dynamic quality and resolution of transient detail that was far superior using the Triton v3. It seemed that the Triton v3 removed a sense of compression that was evident with the Triton v2.

In general, deep bass impact improved with a boldness and extension that was lacking when listening to my system with the Triton v2. Transients seemed less blunted or truncated with the Triton v3. When both the KX-R Twenty and the MX-R Twenty amps were powered from the Triton v3, a new degree of realism was heard from my system. And folks, the differences were not subtle!

Resolution and Detail Retrieval
Although the improvements heard in over-all detail and focus with the Triton v3 were somewhat subtler than the dynamic changes I had experienced, these enhanced qualities of overall resolution and detail retrieval were still easy to perceive. Reproduction of instrumental textures were heightened with a purity and liquidity that was simply lacking in the Triton v2. The Triton v3 stripped away a subtle electronic glare or hardness that I didn't realize was present until I experienced music played with the Triton v3. Instruments sounded more real using the Triton v3 to power my equipment.

Soundstage Perception
The soundstage also benefited from my use of the Triton v3. It was wider and deeper than that I had perceived with the Triton v2. The air and bloom around instruments were more perceptible with an enhanced sense of three-dimensionality when listening to fine acoustic recordings. The improved background silence heard with the Triton v3 contributed to the new sense of realism in soundstage reproduction.

Low Current Components Benefited
The Sonore Signature Rendu SE benefited greatly when it was plugged into the Triton V3. The Signature Rendu SE is a mini network computer combined with a very high quality linear power supply to accept streaming audio that is destined for a USB input. With the Triton v3 I heard a finesse to the sound that was lacking with the Triton V2. The music heard was more relaxed with a purging of a slight digital edge to the sound. There was now a deep sense of silence that allowed fine details of the music to emerge in a harmonically rich fashion.

The Triton v3 Compared to the Denali Series
I asked Grant Samuelsen, Marketing and Sales Director for Shunyata Research, if he could tell me about some of the differences in design between the Triton v3 and the Denali Series power distributors:

"The Medical-Grade filters at the core of Denali 6000T and 6000S are exclusive to those units and explain why they drop the noise-floor at 1 MHz to -60dB—which is easy to hear. The Triton v3's does

not use the medical-grade filters, but there are improved CCI (Component to Component Interference) filters on each of the Triton v3's duplexes to isolate noise from duplex to duplex + the patented NICs (Noise Isolation Chamber). The unique technology borrowed from the Denali designs is the QRBB module that is added to the Triton v3's Noise Isolation Chambers. Due to the Triton v3's size advantage, the QRBB inside the Triton v3 is 3x the size of those in the Denali models. Essentially, the technology that improves high-current transfer, what we call DTCD (Dynamic Transient Current Delivery), is massively overbuilt inside the Triton v3.The NICs in the Triton 3 have more mass and a greatly improved instantaneous current-transfer function, which will likely account for most of the differences you hear between the Denali models and the Triton v3. This effect also affects perceived noise levels in an interesting way. Between the NR power cords and Triton v3, we feel we've achieved something truly unique in terms of combining lowered noise and high-current function."

Sonic Comparisons of the Triton v3 and Denali Series
I found the Triton v3 to be the more resolving power conditioner when compared to the Denali Series Power Distributors. The Triton sounds faster and more detailed than the Denali. Subtle microdynamic changes in the music are better reproduced with the Triton v3. There is more weight to musical instruments and voices with the Triton v3 and a better sense of soundstage space. The Triton v3 has more dynamic weight and presence than the Denali. Theoretically, the Denali is quieter with its medical-grade filters, but the overall sound of the Denali is slightly less involving with diminished inner detail and immediacy. The Denali has a smoother, less refined sound than the Triton v3. One other difference that might be important for those of you with monoblock amps and preamps that draw some significant current, is that the 8 outlets on the Triton v3 are all high-current outlets while the Denali distributors only have 2 high-current outlets.

The NR Series of Noise Reduction AC Cables

Shunyata has updated their previous line of Sigma and Alpha AC cords with a new line of cables called NR or Noise Reduction Series both of which utilize Shunyata's ΞTRON PATENTED TECHNOLOGY.

Many of you will notice that Shunyata no longer has subdivisions of models such as High Current, Analog, or Digital that was found with the previous Σ SIGMA AC Cable line. Now there is only a Sigma NR or Alpha NR AC cable. Shunyata also offers a less expensive AC cable in their NR Series called the Delta. Consolidation of the previous Σ SIGMA AC Cables' High Current, Analog, and Digital designations into a single model has made the purchase decisions involved for these cables easier as well as saving the $500 premium for those that desired a High Current model.

I should mention that the Sigma and Alpha NR AC cables' fit and finish are exemplary. The cables are quite substantial in size given their large gauges, but there is a great deal of flexibility that that helps to facilitate installation.

The NR Series offers several new improvements over the previous Shunyata offerings:

- Newly Designed Noise Filters

The filters have been improved with broader bandwidth filter sets that extend lower in frequency than the previous series. These new noise filters improve the CCI (Component-to-Component Interference) by reducing power line noise and radiated RFI / EMI interference.

- KPIP (Kinetic Phase Inversion Process)

All the NR cables are now treated with KPIP that not only reduces break-in time to 3-4 days of a mild settling period, but dramatically improves the overall-sound making the previous cryogenic treatment unnecessary.

Other Features Include:

- CopperConn connectors made with pure copper contacts.
- VTX hollow tube wires are made in the shape of a hollow tube eliminating skin effects and random eddy currents since current can only travel through the outer rim on the wire.
- Pure OFE (Oxygen-Free Electrolytic) Copper Wire: 6-gauge in the Sigma and 8-gauge in the Alpha cables.
- The use of after-market AC cables often elicits controversy from those that feel that all AC cords sound the same. Shunyata has gone one step beyond most cable manufacturers by having a measuring process called DTCD Analysis.
- "DTCD is a method of current analysis that measures instantaneous current delivery in the context of a pulsed current draw. In layman's terms, it is a way of measuring current performance into typical electronic component power supplies."
- "The DTCD Analyzer allows the measurement of pulsed transient current through a variety of AC power products, including power cords." Shunyata Research optimizes their AC distribution centers and AC cables by using the DTCD Analyzer to improve and optimize performance."

Why Dynamic Transient Current Delivery?

This was taken from a previous Shunyata product review I wrote. I felt that the concept was important to understand the design of Shunyata's AC cables.

"Our audio components do not draw current in a constant or linear fashion. They draw current in instantaneous pulses as rectifiers switch on to fill the storage capacitors. This is not only found in high current devices, but in preamps and other low current components. These current pulses have high frequency harmonics up to 50 times the frequency of the AC power line. This places a great demand upon the AC power circuit and associated connections to deliver current without significant impedance to the flow. Impedance to these instantaneous current flow demands can cause a loss of phase and time coherence and degradation in voice and instrument weight with an overall compression of dynamics."

The Sound of the NR Series Sigma and Alpha AC Cables
The Sigma and Alpha NR Series AC cables have continued Shunyata Research's move to greater noise reduction, definition, and transient speed from a lusher, fuller sound that characterized their earlier CX Series of AC cables circa 2009. While the ΞTRON Σ SIGMA and Alpha AC cables that I have previously reviewed were found to be revealing with wonderful transient detail, bass definition and impact, the new NR Series of AC cables have noticeably raised the sonic performance bar with a substantial refinement of the overall design. The characteristics that the ΞTRON Σ SIGMA and Alpha AC cables possessed have been improved upon while retaining the strengths of the previous series. The NR Series reduce noise in a superior manner compared to previous models. More importantly, the overall-resolution of the NR Series is superior while retaining the relaxed-natural sound that has characterized Shunyata's AC cables. Transient speed from top to bottom has benefited as has the soundstage reproduction that appears more dimensional. The NR Series also offers more weight and slam in the low end with a superior grip of the bass.

As with the Σ SIGMA AC Cables, the noise-filter elements used in the NR Series are entirely passive and non-reactive, meaning they will never get in the way of current flow, nor will they interfere with the power supplies of the components. All versions are designed for maximum DTCD.

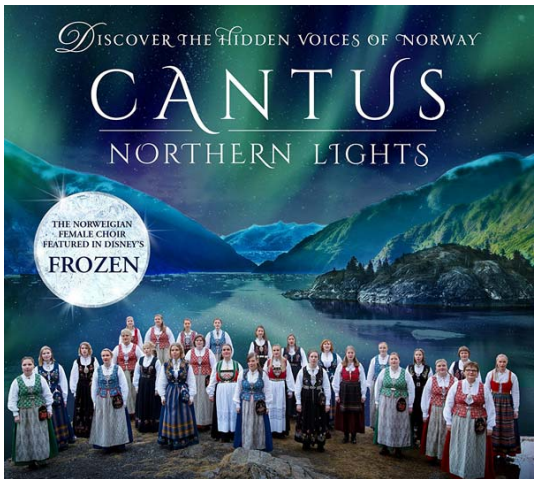
I found that the Sigma and Alpha NR Series shared a similar sound, but the larger, more expensive Sigma had more sonic weight, soundstage, and overall bass control with higher current components. I found that I became hooked on the NR Sigma's sound even with less current demanding components like my Ayre KX-R Twenty preamp and QX-5 Twenty DAC. But for those of you not wishing to drop $3000 on an AC cable, I found the sonic performance of the Alpha NR AC cables, at half the price, to be very impressive.

Speaking of the Alpha NR AC cables, I used one on the Sonore Signature Rendu SE and one on the Sonore Signature Linear Power Supply that powered an SOtM tx-USBultra USB enhancement device. The enhanced sound quality and reduction of noise I experienced with the new Alpha NR cables surpassed that of the Σ SIGMA Alpha AC cables I was previously using.

The Hydra Reference Stack
The Hydra Reference Stack or Triad combines the Triton v3 with the Typhon and DPC-6. The Typhon adds to the power conditioning potential of the Triton v3 with its large NICs (Noise Isolation Chambers) that work in parallel with the Triton v3 while not carrying the current load of the Triton. The DPC-6 is a specialized distribution center that deals specifically with noise emanating from Switching Mode Power Supplies used in computers and components like network switches. The DPC-6 electrically isolates these noisy components from polluting the other audio components on the shared power line.

One question I had was if the Typhon would still make an appreciable contribution to the Triton v3 given the v3's improvements? I found that the Typhon did improve the sound of the Triton v3 in the same manner it had with the Triton v2.

I have also been asked if the Typhon works well with the Denali Series. Grant Samuelsen felt that the Typhon, while offering a significant improvement to the performance of the Triton v3, was not as effective when paired with the Denali. The Denali does not have the internal bus system that allows it to fully take advantage of the benefits of the Typhon's noise reduction capabilities.



What You Can Expect to Hear From Your Music
The Triton v3 with the Sigma / Alpha NR AC cables heightened my sonic experience while listening to Northern Lights performed by Cantus (24/96). The Triton v3 with their new AC cables provided a more relaxed presentation of the chorus with removal of a small amount of sonic glare or hardness that previously came through when listening to this title with the Triton v2 / Σ SIGMA AC Cables. The soundstage expanded with the Triton v3 providing a tube-like bloom and dimensionality to the sound.

The Triton v3 powered by the Sigma NR AC cable did wonders for resolution of transient detail when listening to Barley Moon by AyreHeart (DSD128). This quartet of vocals, two lutes, colascione, and percussion perform Renaissance music from the British Isles. The ultra-quiet background provided by Triton V3 and their new AC cables captured every inflection and nuance of the string instruments. There was a micro-dynamic liveliness to the overall sound that was not present when listening to the older Triton v2 with the Sigma AC cables. Brian Kay's vocals emerged with a purity that was lost on the Triton v2. It was as if a slight veil had been lifted from the performance when listening with the new Shunyata gear.

Liz Wright's new album Grace (24/96) was significantly enhanced listening with the Triton v3 / NR AC cables compared to the Triton v2. The Triton v3 not only captured the dynamic qualities of the music, but brought the singer and chorus out into the room with clarity and focus that was lacking with the Triton v2. I found that this title had outrageous realism and immediacy when heard through the new Shunyata system.

Conclusion

The Triton v3 is a product unlike anything Shunyata Research has previously offered in its 20-year history of producing power distributors. The degree of enhancement that the Triton v3 performed for my system was one of the largest sonic improvements I can remember over the last several years. For those of you that have the older versions of the Triton, I highly recommend that you upgrade your unit. The new technologies that Shunyata has added to the Triton v3 will more than meet your sonic expectations. The new NR AC cables were also very impressive easily improving upon the previous Σ SIGMA AC Cable line. When combined with the Triton v3, a formidable power conditioning system is created that will assuredly enhance the listening experience for the dedicated audiophile.