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AC supply voltage conditioner (power distributor) + AC power cord (system)

Shunyata Research HYDRA TRITON v3 + Σ SIGMA NR

Manufacturer: **SHUNYATA RESEARCH** Price (in Poland):

• Hydra Triton v3 – 44,280 PLN

Σ Sigma NR – 14,760 PLN/1.75 m/1 piece
A COMPLETE SET – 103,320 PLN

Contact: <u>cservice@shunyata.com</u> <u>shunyata.com</u>

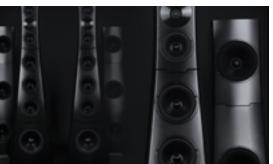
MADE IN USA

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O YG ACOUSTICS" Pure Harmony HAILEY









Translation: Marek Dyba Text: Wojciech Pacuła Images: Wojciech Pacuła





t is a fact that there is a boom for system components that serve to improve the quality of supply voltage. A year or, at the most, two years ago, the majority of products sent to us for a test were audio file players or devices connected with them, as well as signal cables. Earlier, the most popular choices had been amplifiers and turntables. When it comes to the number of loudspeakers, it has always been constant. At the moment, about 25% of all test requests concern power cords, supply voltage conditioners and related accessories, e.g. antivibration platforms and passive RFI/EMI filters.

The system described is probably one of the most expensive ones available on the market. However, things can always get better, cannot they? That was probably the assumption of designers working for the American company, who proposed a system based on SEORS the Triton v3, called the Hydra Reference Stack. The triad includes: the Triton v3 conditioner, the Typhon QR passive AC supply voltage filter and the DPC-6 v3 conditioner, designed only for digital sources, mostly computer-based ones. The Typhon plays the role of an additional filter connected to the Triton, similarly to the <u>Acoustic Revive RPC-1</u> and the <u>Qualia Physic Q1</u>.



- Testing Methodology

I compared the Shunyata system costing 103,320 PLN to my reference system consisting of: the Acrolink Mexcel 7N-PC9500 (a wall power strip, the Ayon Audio Spheris III preamplifier, the Soulution 710 power amplifier), the <u>Acoustic Revive Power</u> <u>Reference Triple-C cables</u> (the Ancient Audio Lektor AIR V-



The term 'AC power cords' that I use refers only to cables working with alternating current: 230 V/50 Hz, 120 V/60 Hz, etc. I will use the same kind of terminology while referring to 'AC supply voltage conditioners', 'AC power strips' and 'passive or active AC supply voltage filters'. And only in the text of an article, when I have used a given term again, I assume it is possible to quit using the descriptive elements, leaving just a 'cable', 'conditioner' and 'filter'.

| ACTION – REACTION

Returning to the boom for this type of products, it is sensible to ask about its cause. The simplest answer is: it is fashionable. Trends in audio are doing well, similarly to other industries. Fashion builds demand and the purchaser's sense of uniqueness. Apart from fashion, however, there must be some other reasons that cause and legitimize these trends – and they are much more interesting.

As it seems, the most important change is connected with drastic deterioration of conditions for the transmission of electricity. Omnipresent high-frequency noise, generated by different types of transmission devices, e.g. mobile phones and Wi-Fi, is the most destructive. The presence of cheap impulse amplifiers that generate a lot of "rubbish" thrown into the power network is also a problem. Finally, yet another issue is the more and more frequent transfer of Internet signal through the power network, generating DC voltage and noise in it.

What is also important is a reaction to these problems. Research on methods of eliminating distortions has been carried out for years and a lot of industrial solutions have been successfully developed – mainly for the telecommunications, medical and defence industries. The most money has been invested there in such projects and the best results have been achieved – they are regularly published by universities and research centres. Based on these research results, audio specialists have designed their own filters, cables and conditioners. However, they were forced to adapt them, as it appeared that it is not possible to transfer industrial circuits directly to audio. You can read more about this fascinating process in an article entitled *Magia systemu: Verictum* (The magic of the system: Verictum) ("High Fidelity" No. 158, August 2017). edition CD player) and the <u>Acoustic Revive RTP-4UE Ultimate</u> power strip standing on the <u>Asura Quality Recovery System Level</u> <u>1</u> platform. The whole set costs about 100,000 PLN.

I still remember a system consisting of elements manufactured by the Polish company <u>Verictum</u>, with a power strip, a complete set of power cords and a passive supply voltage filter, which I will also try to refer to (the whole system cost 178,000 PLN).

Both power supply systems were connected to Furutech sockets connected in parallel to a separate power line, running from a separate AHP fuse. The listening session consisted in multiple A/B/A comparisons. As tube devices – the CD player and the preamp – need a few minutes each time after they are switched off for their parameters to stabilize, the comparison was not instant. Let me add that I did not use a CGC system.

As I already said, the conditioner should be treated as a classic device, e.g. an amplifier. So, it was placed on its own feet on the upper shelf of the Finite Elemente Pagode Edition rack.

SHUNYATA RESEARCH in "High Fidelity"

- Sound

Recordings used for the test (a sele- ction)

- Okihiko Sugano Record Collection, Victor Edition/Trio Edition, Audio Meister XRCG-30025-8, 4 x XRCD24 (2012);
- *Ombra Mai Fù, Pachelbel: Canon*, wyk. I Solisti Italiani, Denon COCQ-85325, "Denon Classics Best", Ultimate HQCD (2017)
- *Suicide Squad. The Album*, soundtrack, Atlantic/Warner Music Japan WPCR-17449, CD (2016)
- Andrzej Kurylewicz Quintet, Go Right, Polskie Nagrania "Muza"/Warner Music Poland 4648809, "Polish Jazz | vol. 0", Master CD-R (1963/2016);
- Bottleneck John, All Around Man, Opus3 CD 23001, SACD/CD (2013)
- Chet Baker, *Chet Baker sings and plays*, Pacific Jazz/EMI Music Japan TOCJ-90028, HQCD (1955/2006)
- Depeche Mode, *Going Backwards [Remixes]*, Columbia 5477452, SP CD (2017)
- Ferdinand Fisher, *From Heaven on Earth*, wyk. Hubert Hoffmann, Challenge Classics CC72740, SACD/CD (2016)
- Kazuo Yashiro Trio, *Love Is Here To Stay*, Takt Jazz Series/Nippon Columbia COCB-54090, "Dig Deep

HYDRA TRITON v3

<u>SHUNYATA RESEARCH</u> is one of the most experienced manufacturers of audio equipment, specializing in the filtration of AC supply voltage in conditioners, filters and cables. I tested the AC Hydra Model-8 supply voltage conditioner with the dedicated AC Anaconda Helix Alpha power cord for the first time eleven

- Columbia", Blu-spec CD (1968/2014)
- Nat 'King', *Welcome to the Club*, Columbia/Audio Fidelity AFZ 153, SACD/CD (1959/2013)
- Orchestral Manouver in the Dark, *The Punishment of Luxury*, White Noise | RCA Deutschland Sony Music Entertainment Germany GmbH 5435492, CD (2017)



When it comes to changes introduced by the Shunyata Research power supply system, it can easily be said that when it comes to their size and type, they are similar to what would happen if we changed the signal source in our system, i.e. the turntable or CD player. Comparing it to the reference system, I would say that would mean obtaining an equivalent source, but with a years ago (read <u>HERE</u>). The set was then bought by Rysiek B., a member of the <u>Krakow Sonic Society</u> and is still being used by him. In 2014 I listened to its more advanced and newer version, the Hydra Triton model, this time with a complete set of power cords.

In 2017, the company included the latest (v3) version of the conditioner in its offer. The device looks like and weighs as much as a classic large power amplifier. It is equipped with eight CEE 7/3 Schuko (German: *Schutzkontakt*) power sockets connected in parallel in pairs. They constitute four separately protected and filtered sets, each with the maximum power consumption of 16 A. Next to them there is an excellent electrohydraulic switch which is part of overcurrent protection. It is important not to treat it as a "master" switch for the whole system.

We got one Hydra Triton v3 conditioner for the test, with a complete set of almost identical power cords – one for the conditioner itself, one for a CD player, one for a line preamplifier and one for a power amplifier. They are "almost" identical because the cable connected to a wall-mounted power socket on the conditioner's side ends with the rectangular IEC C19 connector with higher current-carrying capacity (16 A/230 V) than classic connectors used in audio equipment. The remaining cables had the C13 connectors that we all know (rated current – 10 A).



Shunyata Research is a company with a lot of experience in designing and constructing power supply products and devices for filtering supply voltage. It also owns a lot of patents in this field. It has developed a number of technologies that are improved with subsequent versions of its products and offers something new from time to time. Each new solution is given a suitable acronym, which may seem an exaggeration – there are a lot of products. However, I understand the marketing aspect of it – until recently, most music lovers had negated the necessity to use appropriate power supply elements, so companies needed to do things in an original way. It is no different in the case of the third "Hydra".

significantly different character of sound. When compared to cheaper, not so technologically advanced solutions, but with a good-sounding and well designed audio system, that would be a change comparable to replacing a high-class turntable with a master tape played from a reel-to-reel tape recorder.

I mention these two categories of sources because, although it may seem to lay people that we are talking about the same type of sound here, as the best pressings should be the *analogues* of master tapes, in reality we are referring to two completely different worlds – ones that have some attributes in common but make very different use of many of them in practice. Similarly to a master tape, the Shunyata system offers a complex musical message where details matter less, we do not focus on individual events and the so-called "sound stage", i.e. the way sound sources are presented on their own and in space, is mostly the whole message *at once*, emotions connected with it, and not individual instruments placed in strictly specified locations.

I was struck by that instantly, right after listening to the Master CD-R with recordings from the album *Go Right* of Andrzej Kurylewicz's quintet. The percussion is recorded there from a certain distance (or at least it sounds like that), i.e. like from microphones hanged over it, without closely collected snare drums or a microphone placed next to the percussion foot. Thanks to this, the musical message is incredibly natural and resembles something that Roy DuNann did in the 1950s and 1960s (e.g. Sonny Rollins and *Way Out West*, Art Pepper and Art Pepper Meets the Rhythm Section, André Previn from West Side Story).

With *Go Right*, the reference system promoted direct sound a little and entered the created musical message deeper, bringing everything closer to the listener. Shunyata, on the one hand, made direct sound more distant and, on the other hand, enlarged the whole thing. More strongly emphasised reverberation and clearer acoustics made the sound volume larger, even though instruments themselves were not shown in such a direct and tangible way.

That was not a single incident, as I got a very similar impression of Chet Baker's vocal from the HQCD and Janoš Starker's cello from the XRCD24 box prepared by Mr Okihiko Sugano, one of the most famous Japanese sound engineers who has worked as a journalist for the "Stereo Sound" magazine for many years. On the one hand, when it comes to their 3D images, they were less unambiguous and seemed to be more strongly merged into the background. On the other hand, they were more naturally created – if we consider the presentation method characteristic for an analogue reel-to-reel tape recorder to be "natural". Anyway, it is no use talking too much here – this is the way acoustic instruments are heard and this is what an unamplified jazz band sounds like in

Technology

A very sensibly written user's manual presents the most important technologies with their short descriptions: DTCD Designed, CCI Noise Reduction, QR/BB and NIC Noise Reduction, CGS, CopperCONN Outlets, ZPP-DS Distribution Bus, ArNi Conductors, VTX Geometry, SFF-50 – to mention just the most important ones. They are systematically discussed both in the manual and on the company website, so let me just provide a short synthesis.

In Shunyata, design work is carried out with the use of meters and analysers, and only after everything electrically complies with the any room, even if we are sitting very close to the performers.

Similarly as in the reference system and once in the Verictum system, sound has extremely "dark" background with the tested system. It seems that sounds come from nothingness and hang in space by themselves without anything underneath, which, without good power supply, is perceived as chaos that music is built on. Perhaps this is why sound sources were absolutely clear and unambiguous with the Shunyata system. Even though they do not have strong 3D images, their edges seem to smoothly merge with the surroundings. What I am talking about is different from fuzzy edges, however. Here the sources are stable and really clear.

given assumptions and safety standards, a series of listening sessions takes place. Measurements are carried out with the help of the Dynamic Transient Current Delivery (DTCD) analyser. High-frequency noise is reduced by the Noise Isolation Chamber, i.e. a multi-layer chamber with ferroelectric ZrCa-2000 granules in the housing, on the cable's circumference. As far as the conditioner is concerned, care has been taken not only to prevent noise from getting *to* devices from the outside, but also to stop devices from interfering *with one another* (the Component-to-Component Interference system).

The AC power connectors are made of highly pure copper (CopperCONN Outlet), similarly to connections between them, made of thick OFC copper buses (ZPP-DS Distribution Bus). Where a flexible cable was needed, a cable developed by the company, made of OFE C10100 copper characterized by the highest certified purity was used – monocrystal Ohno (ArNi) cables having VTX geometry, i.e. virtual tubes. Thanks to this, current is conducted only on the surface of the cable, while random eddy currents and skin effects are minimized.

Finally, let us look at the problem of vibrations. I do not know whether you have paid attention to that or not, but I have been placing strips and conditioners that I test on anti-vibration platforms and feet for many years. For a long time, some people had thought I was a fanatic madman, or at least a madman. With time, however, it appeared that what Mr Ken Ishiguro (Acoustic Revive) told me ten years ago and what I have been trying to keep in mind, is true: vibrations negatively affect not only electronic components but also conductors AND power supply elements. Today it is something obvious that can be measured, but then it was a novelty and an easy target for so-called "objectivists" who are just ignorant, in my opinion.

The Shunyata Research company also shared this view. In order to follow its own recommendations, it enclosed the Triton Hydra v3 conditioner in a rigid steel case with an aluminium front. Its walls were damped where necessary. The company's conditioners used to stand on specially designed spikes. Spikes are only half-measures and other, also rigid vibration-damping elements prove better. I do not know if that is the reason, but the company has used its own SSF-50 feet in its latest products.





When power supply is less sophisticated, the "presence" can be emphasised by hardening the attack or by warming up and pushing out the lower midrange. In this way, we will get contour or emphatic sound – both constitute strong colouring and move us away from the source. However, if this is done with sensitivity, what we get are advantages, while disadvantages are minimized. The Shunyata system does neither. It seems very neutral in its attitude towards musical material.

However, as I say, it is a proposal that differs from my reference system which consists of Japanese Acoustic Revive and Acrolink components, and is totally different from the Polish Verictum system. All of the systems are excellent and each has its own advantages that the other ones do not have. Each can constitute the basis of an absolutely top-of-the-range high-end audio system. This shows that audio is the art of choice and talking about "absolute sound" is an attempt to obtain something that is beyond our reach.

Shunyata produces higher sound than the other two systems and emphasises the treble more. The set which supplies power to the reference system is much darker and characterized by strongly weighed down lower midrange. Bass is also more energized here, but its excellently controlled decay and dynamics are at a similar level, i.e. the highest level possible. Verictum is much sweeter and produces "golden" sound. The sound of its low bass is more "wooden" and tones matter more in it than absolute control. In total, its sound is softer and more velvety. In comparison, the reference HF system seems to be a little crude sometimes.

If I were to compare these systems to signal sources, the Shunyata system would be close to Linn audio file players, Verictum to Lumin, while the reference system would come near the Fidata HFAS1-S10U two-in-one server and player. All the three systems are excellent and yet each is different. Loudspeakers? Here you are: the reference system has the density and saturation of Harbeth loudspeakers, Verictum – the beauty of Franco Serblin devices, while the Shunyata would be equivalent to the depth and resolution of <u>YG Acoustics</u> loudspeakers.

The tested conditioner has one more element which serves to improve the sound of a given system, independent of supply voltage filtration – the Chassis Ground System (CGC). I do not know if you remember, but most products manufactured by small Japanese companies are equipped with a separate terminal connected to the housing. We can connect it to the terminal (housing) of other products and minimize potential differences in

Conclusion

Of all the systems designed to supply power to audio devices that I know, the Shunyata Research with the Triton v3 conditioner and Σ Sigma NR cables is the most neutral one. It is incredibly easy for it to open a window to a different reality in front of us. The systems manufactured by the abovementioned companies bring sound to us, show close tangible sources and saturated midrange, especially lower midrange.

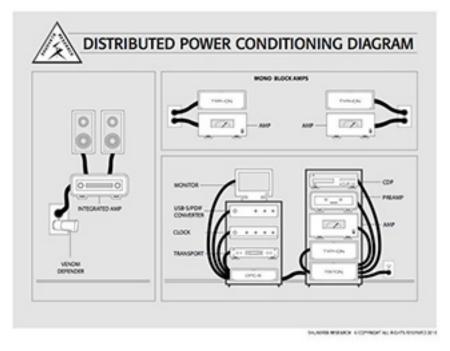
Shunyata stops halfway, as if remembering that even when we sit a

this way, i.e. reduce potential equalisation current flowing through the protection core. The CGC in the Shunyata conditioner consists of four loudspeaker terminals, to which we can connect the housings of all elements in the system. Suitable cables are offered by the manufacturer but any thick cable can be used for that purpose.

$|\Sigma$ SIGMA NR

The AC Σ Sigma NR power cords belong to the top Shunyata Research cable series called Σ Sigma (I will use the name Sigma NR for simplification). They share some solutions with the conditioner, e.g. the geometry of VTX cables, while the conductors are made of Ohno copper (ArNi). The cables are very thick, but also really flexible - individual wires are braided with one another, creating some kind of a "basket" around the empty inside. They end with the company's own CopperCONN connectors, with contacts made of OFC copper. They are surrounded by vibration-damping material which makes it easier to connect and disconnect them. Grey dots on the Schuko connector mark the "hot" pin – one should remember about that in order to be able to use them to their maximum potential.

| HYDRA REFERENCE STACK



few metres away from an enormous Steinway piano, the sound is not within the reach of our hand, as it is combined with acoustics and room reverberation. This was excellently demonstrated by the recent Ivo Pogorelić's concert at the ICE Congress Centre in Cracow, where I sat two metres away from the piano which was used with such emotions and almost with rage that a special team had to reanimate the instrument during a break. Even then, the sound was neither "tangible", nor "dense", but rather extremely dynamic – and this is what the Shunyata system does on the spot.

Of course, it can be done in a different way and it will be legitimized, sometimes perhaps even better. We do talk about recreation, re-playing and recording, and this is a separate domain of art, and an event independent of what happens in front of microphones. The systems that I have talked about will give us lower sound, stronger lower midrange and darker treble. Instruments will be more substantial and more strongly emphasized as separate entities.

However, none of the systems that I have heard, perhaps apart from a full set of Siltech Power Triple Crown cables, did not show such natural space and such large volume. The Shunyata Research is the most neutral power supply system that I have ever heard. It is not for everyone and not for every system, like everything else in audio. However, in a synergistic system it will be the only possible choice, as all other options will seem coloured.

Gallery







HighFidelity.pl

Associated equipment

ANALOG SOURCES

- Turntable: AVID HIFI Acutus SP [Custom Version] - Cartridges: Miyajima Laboratory KANSUI, review HERE | Miyajima Laboratory SHILABE, review <u>HERE</u> | Miyajima Laboratory ZERO (mono) | Denon DL-103SA, review <u>HERE</u> - Phono stage: RCM Audio Sensor Prelude IC, review **HERE**

DIGITAL

- Compact Disc Player: Ancient Audio AIR V-edition, review HERE

AMPLIFICATION

HEADPHONES

- Integrated **Amplifier/Headphone** amplifier: Leben CS300XS Custom Version, review <u>HERE</u> - Headphones: HIFIMAN HE-6, review <u>HERE</u> | HIFIMAN HE-500, review HERE HIFIMAN HE-300, review HERE | Sennheiser HD800 | AKG K701, review (in Polish) HERE | Ultrasone PROLine 2500, Beyerdynamic DT-990 Pro, version 600 - reviews (in Polish): <u>HERE</u>, <u>HERE</u>, <u>HERE</u> - Headphone Stands: Klutz Design CanCans (x 3), review (in Polish) HERE - Headphone Cables: Entreq

CABLES

System I - Interconnects: Acrolink Mexcel 7N-DA6300, review HERE | preamplifier-power amplifier: Acrolink 8N-A2080III Evo, review HERE - Loudspeaker Cables: Tara Labs Omega Onyx, review (in Polish) <u>HERE</u> System II

- Interconnects: Acoustic Revive RCA-1.0PA | XLR-1.0PA II - Loudspeaker Cables: Acoustic Revive SPC-PA

POWER

System I **Power Cables:** Acrolink

ANTIVIBRATION ACCESSORIES

III.d

- Stolik: SolidBase IV Custom, read <u>HERE</u>/all system - Anti-vibration Platforms: Acoustic Revive RAF-48H, review <u>HERE</u>/digital sources | Pro Audio Bono [Custom Version]/headphone amplifier/integrated amplifier, review <u>HERE</u> | Acoustic Revive RST-38H/loudspeakers under review/stands for loudspeakers under review - Anti-vibration Feets: Franc Audio Accessories Ceramic Disc/ CD Player/Ayon Polaris II Power Supply /products under review, review HERE | Finite Elemente CeraPuc/ products under review, review HERE | Audio Replas OPT-30HG-SC/PL HR Quartz, review <u>HERE</u> - Anti-vibration accsories: Audio Replas CNS-7000SZ/power cable, review HERE - Quartz Isolators: Acoustic Revive RIQ-5010/CP-4

- Line Preamplifier: Polaris III [Custom Version] + AC Regenerator, regular version review (in Polish) HERE - **Power amplifier:** Soulution 710

- Integrated Amplifier: Leben CS300XS Custom Version, review <u>HERE</u>

LOUDSPEAKERS - Stand mount Loudspeakers: Harbeth M40.1 Domestic, review HERE

- Stands for Harbeths: Acoustic Revive Custom Series Loudspeaker Stands

Konstantin 2010/Sennheiser HD800/HIFIMAN HE-500, review HERE

COMPUTER AUDIO

- **Portable Player: HIFIMAN** HM-801
- USB Cables: Acoustic Revive USB-1.0SP (1 m)Acoustic Revive USB-5.0PL (5 m), review <u>HERE</u>

- LAN Cables: Acoustic Revive LAN-1.0 PA (kable) RLI-1 (filtry), review HERE - Router: Liksys WAG320N - NAS: Synology DS410j/8 TB Mexcel 7N-PC9300, all system, review HERE - Power Distributor: Acoustic Revive RTP-4eu Ultimate, review <u>HERE</u>

- **Power Line:** power cable Oyaide Tunami Nigo (6m); wall sockets 3 x Furutech FT-SWS (R) System II

- Power Cables: Harmonix X-DC350M2R Improved-Version, review (in Polish) <u>HERE</u> Oyaide GPX-R (x 4), review HERE

- Power Distributor: Oyaide MTS-4e, review <u>HERE</u>

PURE PLEASURE - FM Radio: Tivoli Audio Model One

- **Real-Sound Processor:** SPEC RSP-101/GL

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