

## Test Neutron Star Image HiFi (Germany)

(Translation from Deutsch by deepl® software)

Note: In the summary of the year 2019

Neutron star was ranked best DAC for dematerialized music 2018/ 2019.

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La Rosita Neutron Star streaming D/A converter

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Neutron Star: "A neutron star is a celestial body that is at the end of its evolution".

Dan Bellity couldn't have chosen a better name for his latest creation from La Rosita, as the Neutron Star D/A converter is the culmination of a long line of exceptional equipment in his workshop. Rarely have I encountered such a sophisticated digital device!

Whatever you are looking for in this device, you will find the most modern and sophisticated technology, skillfully combined with a lot of know-how to create a device that does not give you the feeling of being technologically outdated or even incompatible in the medium term by new and as yet unknown formats, an important characteristic when it comes to digital devices.

Dan Bellity has already attracted attention in the past with radical and unusual solutions in the digital audio sector and is not at all unknown in the industry, having spent many years of his career as head of the French installation department at Meridian Audio, certainly one of the first addresses when it comes to converter technology and its integration in a high-end chain.

Visually, the Neutron Star is not very impressive: a brushed aluminum chassis with a thick black aluminum front panel, in the center the milled company logo, which lights up after switching on. The cover is more than adequately secured with six large milled Torx screws and has a herringbone pattern on the top and sides, so that thermal problems are excluded. The parts of the housing that are subject to vibrations are damped by bitumen mats. So you have a housing that passes all kinds of mechanical tests with flying colors, here nothing clicks and there nothing vibrates. In the end, it's much more important than the latest in aesthetic design, so I take the simple appearance of the La Rosita as a statement: "A simple and rigorous chassis makes for richer content!"

The front panel does not offer any possibility of use or adjustment; the power switch, which is used to turn on the power is on the rear panel as the device must remain powered 24/7 in order to be able to fully enjoy the music at any time without warm-up time (I'll come back to this later in detail). Also on the rear panel are the connectors opposite the power socket, a USB input as well as a digital output and a line output which are made as RCA sockets.

The standard equipment is therefore already listed. As an option, the Neutron Star can also be ordered with Balancing-Transformers on XLR outputs, which considerably increases the possibilities for optimal integration into existing equipment. The converter rests on four large felt damped feet, which harmonize perfectly with the housing and its construction. Spikes, shock absorbers or coaster can be omitted here: The Rosita is a set that has been designed and developed down to the last detail, where any use of modification accessories is obsolete.

This leads me directly to what comes and what is extremely rare nowadays: Dan Bellity offers not only a special power cable for the Neutron Star but also accessories such as RCA cables and a special USB cable! For me, a great novelty: you can hear and judge the device with exactly the peripherals that your developer considers to be the optimum, because the cables are from La Rosita developments at all. These modulation and USB cables can be purchased separately under the name La Rosita Cables.

Particularly interesting is the appearance of the mains cable which, with its fabric covering, is reminiscent of a vintage iron cable: just behind the power plug, it has an ultra-strong metal filter housing, designed to provide effective shielding for the components inside. This filtering is done for a good reason: since the Neutron Star is a converter with a 32-bit computing depth and a sampling frequency of up to 384 kilohertz, we finally have a device in our hi-fi system that can become a true high-definition source. Especially when it comes to the interaction between digital audio technology and mains power, it's easy to prove the opposite to anyone who can't imagine that mains cables, plugs and the positioning of devices on a power strip play a role in the sound result.

It's not just a matter of supplying a device, but of considering the overall environment.

It is essential to protect the rest of the system from RF interference.

The power supply of digital devices is therefore not just a matter for us hi-fi enthusiasts: Anyone who has the opportunity to take a look in the engine room of a professional studio or broadcasting company can see for themselves that technical standards such as central grounding, separation of LF and power cables by carefully knotted cable harnesses had long since made their way into the professional audio sector before we noticed them - admittedly with fewer esoteric touches than is sometimes the case in the high-end industry.

The power cable, whose filter is precisely matched to the Neutron Star, is plugged directly into a normal unfiltered power outlet. After plugging in the USB connection, my Mac laptop immediately recognizes La Rosita in the "Sound" control panel, and the music enjoyment can begin immediately - at least theoretically. Because before the first serious listening, everything new converter must go through an extended period of continuous operation with continuous music.

The sound difference between the first listening session after unpacking and what reaches my ear after about a week is striking, to say the least: If The Neutron Star was more on the analytical side in search of the highest neutrality after the first start, certainly with a unique and even dazzling spatial representation, after a week the analytical gives way to a natural abundance of detail, the spatial representation is no less opulent than when first listened to, but no longer appears artificial, but rather credible. The converter now shows a self-contained sound image that I only know in this form from sinister and expensive studio converters often made to measure. The Neutron Star leaves no doubt about the material it feeds on, which inevitably brings me to the subject of streaming and what is sometimes offered in this field. For music files to have a high resolution and an appropriate sampling rate, they must be the product of adequate recording and mastering.

Since every conversion of a digital signal degrades its quality, there is no point in transforming a file that previously had a resolution of 16 bits/44.1 kilohertz by digital algorithms into a file that miraculously has a resolution of 24 bits and a sampling rate of 96 kilohertz or even higher!

True high-resolution files are still rare today, as their creation involves considerable work in a suitable mastering studio that ideally uses the original master as a starting medium.

On the other hand, the digital copy of an original Master tape, which is only available in CD resolution, cannot be oversampled or interpolated to a higher resolution to obtain a better quality; in the worst case, the opposite is likely to happen.

The original copies, which were made on high-quality analogue equipment at the time, can be so close to the original master with today's conversion technologies that I, as a sound engineer, can no longer detect any difference.

Today's productions are less affected by this problem, because today higher sampling rates than the usual 44.1 kilohertz and 24-bit resolution are the norm in recording studios around the world.

In order not to miss the musical approach of the Neutron Star because of "fuzzy" files, I did a large part of my listening sessions with material that I myself held in my hands as a film sound mixer. These are the soundtracks of two films that I offered to the Neutron Star via MacBook Pro for playing: the soundtrack of the film "Jacky" (about Jacky Kennedy) and the soundtrack of an older film by Guiseppe Tornatore, namely the family drama "Baaria", whose music was brought by none other than Ennio Morricone. I still had both sound samples on my hard disks in the studio as WAV files provided by the production companies. During the listening test, I compared the files read by the studio equipment with the files broadcast by the La Rosita Neutron Star.

To get straight to the point: Dan Bellity has pulled off a stroke of genius here. La Rosita easily manages to remotely connect the converters of one of the most common digital workstations in the world. This clear differentiation can be seen in a few categories, which I would like to explore in more detail here. We all know how difficult it is to compare a digital device A with a digital device B - many of us hear no difference.

This circumstance is due to our listening habits, because while microphone system A can still be characterized relatively easily with attributes such as "lighter" or "darker", "more dynamic" or "tuned" and so on, compared to B, nuances do not really help us to evaluate the final digital files.

If you want to get to the bottom of things here, you have to take your ear to another level.

All of a sudden, you're listening to the room responses, the reflections, the high frequencies and their purity, the quiet signals, just before they get lost in the quiet noise of the listening systems.

Neutron Star is an ace in these critical areas. Very fine and quiet nuances are his discipline of choice, a circumstance that transforms a "canned" piano sound into the illusion of sitting in the same room as the real instrument.

The dynamic nuances of which La Rosita is capable are seemingly infinite. There is never that strange digital boredom that makes you read while listening to music, because the music is stripped of its most intimate tension - no, as with a top-class analogue turntable, you sit on the edge of the sofa and hold your breath. The fact that the bass is incredibly dynamic and deep is almost a minor thing, the air carries the sound without "additions or artifacts" at any point we don't feel like a razor blade is streaking your forearm, all messages pass smoothly and realistically.

Proximity and natural warmth are qualities not so often found in digital playback systems. Neutron Star is capable of creating them in the best possible way and with extreme timbre delicacy.

Neutron Star can also make itself invisible or play in a spectacular way, reproducing in the room a space that makes you feel very small even at your listening position, and always respecting the smallest reverberation of useful space the moment after - fabulous!

James Blake's version of Feist's song "Limit to Your Love" on his eponymous album (Atlas Recordings/A&M Records, ATLAS02CD, Europe, 2011, CD) makes the legs of your pants float on appropriate speakers, along with every detail of the specialization created here by digital plug-ins and "reverberation chambers". Everything reaches the ears with perfect realism.

To achieve this, Dan Bellity has done everything possible. Neutron Star is a technological element that propels you to the highest artistic level on all the important parameters in a digital device, such as clock, width and resolution of "digital words", filter design and computational depth, as I have never experienced before.

The fact that its developer attaches great importance to the power supply in all this cutting-edge technology is not only demonstrated by the special power cable - the Neutron Star also has a power supply that would look good on a high-class power amplifier, but it's not just a matter of making a big deal out of it: behind it lies a spirit of development, sophistication and a lot of grey matter.

Dan Bellity pulls out of his hat a whole armada of partially discreetly regulated power supplies, so that in reality all the individual parts of the converter are fed separately. The shielding of the components is exemplary here too: Interference-sensitive parts are enclosed in closed milled aluminum housings for optimum insulation, the D/A converter unit, for example, is optimally shielded in such a housing.

The Neutron Star can rely on a 32-bit D/A conversion chip, whose immense computing depth can be regarded as the current end point in the field of signal processing - a circumstance that is likely to continue in the longer term. From a dynamic point of view, this effort makes little sense, since even the best analog card cannot output more than 20 bits of resolution on the RCA connectors due to its quiescent noise. The reason for 32-bit technology lies in a completely different area: With the Neutron Star we are dealing with a converter with a filter, and such filter models can be built with much more precision and less artifacts if a high-speed component of the latest generation can be used.

The critical issue of clocking is addressed in this D/A converter with no less sophisticated approach: Dan Bellity has a triple clock that runs in the Neutron Star, a product that is also used in other La Rosita digital devices and bears the somewhat unusual name of BioClock®. However, if you're thinking about something green, you're on the wrong track - the name Dan Bellity chose has a completely different origin: during his work, the developer discovered that the clock design that is technically the best from his point of view does not necessarily have to be the best in terms of accuracy. In order to find the best solution from this point of view, he invited conductors, sound engineers, musicians and composers for extensive listening tests. In view of this combination of high technology and human correlation, one can take note of the appropriateness of the designation of the clock design with a wink as an expression of Dan Bellity's humour.

In general, the design approach shows that La Rosita always includes the human ear as the final reference in the development process, in addition to the latest technical achievements, a circumstance that cannot be overestimated and which is certainly one of the reasons for the exceptionally natural, I would almost say "analog" sound of the Neutron Star.

For me, Neutron Star is a new reference in the field of digital-to-analog converters. I wouldn't mind using it in daily studio use, so I'm a bit sad that on the back of the device, the connectors unfortunately don't allow to work with formats other than USB, whereas for my needs the AES/EBU interfaces would be in order. But in this respect, La Rosita also has other offers in its portfolio. In any case, a big compliment to the south of France for this truly celestial heavenly body!

## La Rosita Neutron Star D/A streaming converter

Converter: exoDAC with 32 Bit/384 kHz, digital filter tuning fork clocking: 3 independent BioClocks, level 3/3 Operating Systems: Mac OS X, Linux, Windows connections: USB on synchronous input, S/PDIF digital output (Cinch), line output (Cinch), optional balanced XLR outputs with Lundahl transformers, mains connection Equipment : 2 x 1 m La Rosita Interconnect NF cable, USB cable, filtered mains cable, optional balanced outputs 910 Euro surcharge Version: Black Weight: 6 kg Dimensions (w/o / d): 43/10.5/31 cm Price: 6990 Euro

Contact: La Rosita, 5 avenue Jean XXIII, F-06130 Grasse, phone +33 493/604412, [www.larosita.fr](http://www.larosita.fr)

## Players

Turntables: Bauer dps 3.iT (latest version) Tonearms: Schröder Reference, Schröder CB, Schröder DPS (modified at will), Immedia RPM2 Pickups: EMT JSD 5, Lyra Helikon SL (refurbished), Koetsu Urushi Wajima, Dynavector Te Kaitora, Ikeda 9, My Sonic Lab Eminent, Miyajima Zero, Ortofon SPU Royal N, Zyx R-100 FUJI XL phono stages : Air Tight ATE-2005, Scheu Cello RPM Output Transformers: Air Tight ATH-2A, Cotter CD Player: Marantz CD-94, modified with Klangfilm Output Transformers D/A Converters: Avid Pro Tools HD, Damascus Abbey Road (custom), Prism Sound ADA-8XR Computer and Software: MacBook Pro with Mac Pro Tools, Workstation with Avid Pro Tools HD Preamplifier: Air Tight ATC-2 HQ, Air Tight ATC-1 HQ, Air Tight ATC-3 HQ (with Tango output transformers), Studio Controller Power Amplifier: Air Tight ATM-2, Air Tight ATM-4, Air Tight ATM-1S Speakers : Westlake BBSM-10, Geithain ME901K, Chartwell LS3/5A Cables: Stereolab Draco and Diabolo, Stereolab 75 ohm digital cable Accessories: Power strip with fish filter (with unfiltered plugs)

The legends of the images:

Unusual power supply for a digital component: An oversized power supply as usually found in amplifiers.

Option: The free space (marked by the white square) is occupied by **Lundahl** transformers, if the Neutron star is ordered with balanced outputs or if the Balanced output is retrofitted.

Top left: Immune to stray radiation or resonance: The complete D/A converter unit is shielded and encapsulated in a metal case.

Bottom left: The optional power cord