

Ideon 3R USB Renaissance

Digital Greece

REVIEW BY:

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- ✓ *Reclocking with local oscillators*
- ✓ *Triple USB isolation*
- ✓ *Re-Drive chip*

IF YOU THOUGHT THAT THE COLLABORATION THROUGH THE USB PORT BETWEEN YOUR EXTERNAL DAC AND YOUR PC IS PROBLEMS FREE, WE SHOULD EMPHASIZE THAT THIS IS DEFINITELY NOT THE CASE. FORTUNATELY, THERE IS, NOW, A SOLUTION TO THIS PROBLEM AND IT'S A LOCAL (GREEK) DESIGN.

However far digital audio has progressed and it has, its big demon -- relentless jitter -- always makes its presence known when we least expect it, to spoil our sonic reproduction and to destroy the performance of our expensive systems, systems we put together with a lot of effort, expense, and elbow grease.

We had long believed that using our computer as an audio source connected through the USB port to a DAC, we would be avoiding jitter. In this configuration, the data transmission is theoretically asynchronous, meaning that the DAC does not use the computer's clock but instead uses its own local one. But, as things turn out, reality belies expectations and jitter puts in



its appearance and creates problems even via our computer's USB. This is what gave birth to a number of correction devices which are responsible for reducing the jitter between the USB port of our computer and the USB port of our DAC. The best known of these is the Audioquest JitterBug, as well as a host of iFi Audio peripherals, and many other offerings from other manufacturers.

We had our first hands-on experience in this matter with the first Greek creation that tackles the jitter issue and USB interconnections; as it turns out, this device deals takes a very serious and exhaustive view of this issue. We are referring to the device called 3r USB Renaissance, made by Ideon Audio, a Greek firm known for the excellent Ayazi DAC which got us very positively excited during its recent review. So the creators of the 3R discovered at some point (as we have we at the magazine, for quite some time now) when listening to the same musical program played through different computers, that there were notable differences in the sonic result. In theory this should not have been happening, since asynchronous data transfer cannot be

affected by jitter, right? Wrong! As our Ideon Audio friends have discovered, USB ports are very prone to noise problems during the transmission of audio signals, the reason being that this type of transmission is actually isochronous. This means that data is transferred in real time as sound (flow) streaming. After this "discovery", Ideon came up with the solution which they called "3R". It is a tiny device that has one USB input in one side and a USB output on the other side and is powered by its own external power supply. By the way, the USB port independent power supply is another important point, in that a local power supply (rather than power from the PC itself) improves even further the performance of any USB DAC.

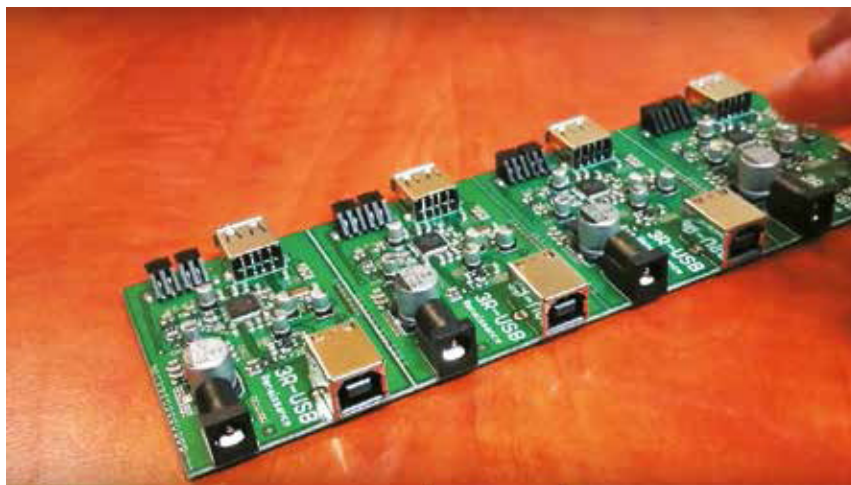
The 3R USB output, which is the one to connect to our DAC, consists of a state-of-the-art USB controller with extremely low noise and signal re-clocking using ultra low jitter oscillators. Its communication with the computer is done through asynchronous buffers, which achieve a high level of isolation. And this, is the first innovation coming from 3R.



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Ideon Audio 3R USB Renaissance is the magic little box that came to transform our computers into high-end sound sources, putting the capabilities of our USB DAC to so much better use.

The second innovation is the USB drive, which is done through a special IC redrive that eliminates the USB signal transfer losses, solving this way the interconnection problems created by cables and plugs. Moreover, the 3R replaces the USB power supply with a clean, low noise independent power source, achieving, here again, total isolation from the computer's noisy power supply. To finalize the design and create the 3R, Ideon Audio's people spent over a year testing the relevant chip technologies available for USB signal transfer along with various power supply solutions, to select the solutions that produced the very best audio performance for all cases.



JITTER, JITTER?

The time we started reviewing the 3R, we were also doing a wide review of many different headphone amplifiers with DAC for the magazine, so we had the chance to test the 3R with all these devices and all the other DACs we had in our lab such as, the Audioquest Dragonfly RED and our "loyal" Rotel RA1750 which also has a USB port. So we auditioned the 3R with all the USB DACs we had in our labs. Ten USB DACs, ten testing trials for the 3R. Ultimately, we verified and confirmed the importance and the sound improvement that this little magic device offers, ten times. In all ten cases, the improvements and proficiencies that 3R brought into the USB signal path were so profound and important, that finally we reviewed all the USB DAC/headphone amps with the 3R connected between the computer and each one of these devices.



It goes without saying that from device to device the differences were more or less intense, which is reasonable and expected,



TIPS & TRICKS

TIP 01 We tried the iFi Audio DC Purifier for powering the 3R and we experienced more improvement.

TIP 02 No drivers or any other effort needed... it works right away.

TIP 03 We used the Coffee USB cable by Audioquest and we noticed a difference.

Ideon Audio 3R USB Renaissance

TECHNICAL SPECS

CATEGORY: USB reclocking and conditioner

INPUTS: 1xUSB, Power Supply

OUTPUTS: 1xUSB Audio Class 2.0

DIMENSIONS: 74x18x55 mm

FOR

- SIGNIFICANTLY DECREASES THE JITTER FROM USB
- DRAMATICALLY DECREASES NOISE
- OUTSTANDING IMPROVEMENT OF TONALITY, IMAGING, AND DYNAMICS

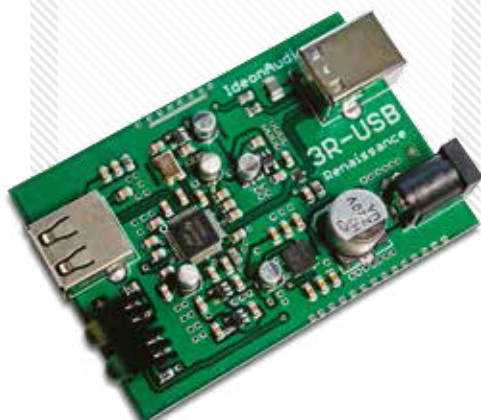
AGAINST

- LIMITED AVAILABILITY IN THE MARKET

MANUFACTURER: IDEON AUDIO

CONTACT: 2106199887

PRICE: €199



since each manufacturer implements the USB port differently and isolates it more or less efficiently from the host (the computer). The sound of all the USB DACs became sweeter, much warmer and rich, with clearly more extensive, better controlled, crisper and better defined low frequencies. Respectively, the mids obtained a richer definition and a more colorful presentation, while the high frequencies became airier, much clearer and better defined, but also much more velvety and properly rounded. Additionally, the - so difficult to be interpreted correctly - hi hats or the hissing voices, had their natural brilliance, losing the harshness that afflicted them before using the 3R. The sound stage grew considerably in size, gained better clarity in terms of instruments placement while the background was much quieter. In addition, the inter-space between instruments were outlined - actually painted - with an impressive air, space and distance between them, together with quietness and with no dirt, burr or noise, that also afflicted them before connecting the 3R.

Especially the strings and the female voices - that are harder to be naturally interpreted in digital sound - benefited with the 3R gaining body, sweetness and rounded ends, while without the 3R in many instanc-

es these managed to even disturb us. Moreover, since micro-dynamics rose from silence anymore and not from a noisy background, the rendering of the music's dynamics improved significantly, making any reproduction without the use of the 3R, sounding really compresses and limited.

For a long time we had been connecting our USB DACs to our computers and we had no idea that this USB connection was encountering so severe problems; while we suspected, we were nowhere near the magnitude of the magic lost through clocking and noise errors, and the beauty that emerges we utilize the USB transfer properly.

From now on the way you should listen to music from computer playback has a name to it and it is called Ideon Audio 3R USB Renaissance - the magic box that came here and transformed our computers into exceptional sound sources. It has the ability to release the sound quality that any computer can potentially give us, bringing out the most from our DAC's capabilities.

For what the 3R offers, the cost is negligible while its use is essential.

As for us, we have nothing more to say than to highly recommend this device without hesitation. ■

