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● REVIEW IDEON AUDIO 3R USB RENAISSANCE MK2

Good sound comes in a small package

The name may be something of a mouthful, but this little box could just be the most cost-effective addition you can make to a 'computer audio' system

Computer audio is convenient. With little more than a laptop or desktop machine and a suitable digital-to-analogue converter – one with a USB-Type B input, enabling it to be 'seen' by the computer as a sound output device – you can have a high-quality playback system that's more than a match for many a CD player. What's more, it will take you into realms way beyond the capabilities of the CD, opening up the worlds of greater bit-depths and higher sampling rates, both of which promise better detail and dynamics for a clearer view of a recorded performance. The trend has caught on, to the extent that what was once a playback method favoured only by a small number of enthusiasts, sometimes described as the 'Macs and DACs' brigade, has gone mainstream. New DACs without that USB 'computer audio' input are rare, and that square Type B socket is increasingly found on everything from integrated amplifiers to AV receivers.

However, there is a limitation to this kind of computer audio, and that's the USB interface between computer and DAC. USB works, and it will send music just as it does files, pictures, data to printers and so on, but the very universality of the Universal Serial Bus means it was never designed specifically to carry high-quality audio and is prone to all kinds of interference and problems.

The problem with audio is that it happens in real time. Unlike sending data to a printer or copying a document or whatever, there's no time for multiple reads of a file if errors occur due to interference or timing errors between the sending computer and the receiving DAC, both of which have their digital abilities controlled by high-speed timing clocks. And then there's the further problem that USB carries power as well as data – that 5V supply is how you can recharge your phone from your computer – and that's another potential source of interference.

Which is where devices such as the 3R USB Renaissance from the Greek company Ideon Audio come in. This little box, now in its Mk2 form, plugs into the USB line, and uses its internal circuitry to regenerate the USB signal and then re-clock it to give the cleanest possible data to the DAC's USB input. Selling direct from the manufacturer

SPECIFICATION

IDEON AUDIO 3R USB RENAISSANCE MK2

Type USB Reclocker/Regenerator

Price €269 (approx £235)

Inputs USB-Type B, 75V DC

Outputs USB-Type A

Accessories supplied Mains adaptor

Dimensions (WxHxD) 5.8x1.7x7.5cm

ideonaudio.com



at €269, plus €22 shipping worldwide – just over £250 at the time of writing – it manages to correct the digital signal and prevent errors and interference from getting through to the DAC. It also disconnects the 5V power-line on the USB connection from the computer, which is a major source of noise, and generates clean power for those DACs usually powered from the computer such as Audioquest's DragonFly models and Meridian's Explorer2.

It can be used at either end of the USB cable, although Ideon says the best effect is heard when it's used just before the DAC. It needs no special drivers to work and is powered by a plug-top power supply, for which a UK three-pin adapter will be needed. You'll also need an extra USB-B-to-USB-A cable to connect the device, which has a USB-A input and outputs to your DAC via a USB-B socket.

And that's it. The 3R has lights for power and USB data reception, and just works, although there is scope for experimentation with the use of different mains supply devices. I tried it with a third-party linear power supply, at a cost of £15 or so, while Ideon Audio sells a rather more ambitious SP-1 power supply unit at €450 (£390) or bundled with the 3R for €600 (about £520), offering a saving of some €120.

PERFORMANCE

I mentioned above that the 3R 'just works' but that significantly understates the effect this little box, which will fit in the palm of your hand, can have on the sound of a digital system. I've been trying it with a variety of DACs, from the USB-powered ones listed above to some very high-end digital hardware I have been listening to of late and in each case the effect has been nothing short of dramatic.

I'm not talking about 'well, it might be a bit better but I'm not sure – let's just say

it sounds different'. Rather, the Ideon unit offers a definite improvement in detail, dynamics and bass control on the kind of level one might expect when moving up from a simple, inexpensive DAC to something rather more sophisticated.

Suddenly even the likes of the Audioquest DragonFly Black – and here we're talking about a device selling for under £100 and crammed into a housing no larger than a USB thumb-drive – sounds big, weighty and very robust, while the effect with already very impressive mains-powered DACs is similarly incremental and just as impressive. It's not just in the improved bass definition and that palpable increase in the sense of air and space around performers, creating a more solid sound-stage picture and furthering the impression of listening to a real event; no, what's most apparent with the 3R in circuit is the timbral quality of instruments and voices, which is simply more explicitly stated and richly delineated, again adding to the realism of the sound.

These effects are noticeable even with relatively low-resolution content, such as internet radio streams, which gain substance and as a result become more involving; but it's with higher-quality content that the 3R's contribution becomes even more apparent, elevating even fairly humble digital conversion equipment to very high levels of performance and realising the potential of higher-resolution files. Switching from the standard power supply to the linear one produced much subtler gains, sufficient to be viewed as icing on the cake rather than a must-have: there was just a shade more sparkle to the most vibrant of recordings. But the effects of the 3R itself requires no such equivocation – if you're serious about computer audio, it should be on your wishlist. 🎧