HICRITIC

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WILL STREAMING END CD?

Andrew Everard discusses the future of music software formats, as computer-based formats continue to evolve

MORE MAGIC?

Magico's \$5 was a clear winner, so can the slightly smaller \$3 repeat the trick?

UNIQUELY DIFFERENT

Paul Messenger tries out Well Tempered's very unusual Versalex record player

ANTELOPE'S DSD DAC

Chris Bryant assesses Antelope Audio's upmarket DSD-capable Zodiac Platinum

HEADPHONE AMPS

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COME IN RED 100

RussellK is a new speaker brand that combines UK design with Polish manufacture to deliver very fine value for money

STATE OF CAMBRIDGE ART

Cambridge Audio's latest top-of-the-line separate pre-/power amp is given the Chris Bryant treatment

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Come in RED 100!

RUSSELL K IS A NEW SPEAKER BRAND THAT COMBINES UK DESIGN WITH POLISH MANUFACTURE. PAUL MESSENGER RECKONS THE RESULT IS HIGH VALUE FOR MONEY



SPECIFICATIONS

Russell K RED 100

Designed/Manufactured
UK/Poland
Construction 16mm MDF
(front baffle 19mm)
(Undamped cabinet has bracing

shelves with multiple apertures)
Reflex port tuned to 33Hz
Drive units 165mm bass/mid
with doped, curved paper cone
25mm soft dome tweeter

Crossover 2.2kHz, nominal 12dB/octave acoustic enclosed-field ferrite-core bass inductor tweeter attenuated by misaligned Zobel network

Sensitivity 87dB Amplifier load above 60hms up to 11kHz

Dimensions

Price

(WxHxD): 260x400x270mm Weight 11kg

from £1,199

first mentioned the Russell K RED 100 speaker in my back page column three issues back (Vol7 . No4), purely as an example of the increasing trend to bring the production of UK-designed loudspeakers back from the Far East to Eastern Europe – Poland in this instance. It's not that Chinese and other Far Eastern countries can't make decent loudspeakers at very competitive prices - the past decade has clearly proved that the reverse is true. But working closer to home can also have benefits, especially for the relatively new and small operation, where some flexibility is useful and transport costs for small quantities are likely to be less. Furthermore, the cultural ties are much closer, which might be a rather more nebulous benefit, but seems to be just as important, especially in such matters as education.

I was initially reluctant to carry out a formal review of the speaker, for at least two reasons. First, I've known Russell Kauffman for a very long time, because he used to be a regular member of the 'blind' listening panels I operated while carrying out loudspeaker group tests for Hi-Fi Choice magazine, probably for the best part of twenty years. Under such circumstances, could I avoid favouritism and retain any degree of objectivity? Then there's the worry about reviewing anything from a brand new start-up operation. Would I like it, and if not, would publication damage an embryonic company? Happily, my fears were unfounded: first because I immediately really liked the sound of the RED 100; secondly, by the time I managed to schedule a review, I discovered that no fewer than ten leading UK dealers had already been sufficiently impressed to stock the speaker.

In configuration terms the *RED 100* is a classic two-way stand-mount, though the shape is almost self-consciously oldfashioned. However, the presentation of the £1,199/pair base model is decidedly unconventional in that an inset front panel is painted red (hence the name), though the fainthearted can now specify black, and in both cases four horizontal grooves add worthwhile decoration. Elsewhere the finish is textured, with a heavily ribbed, corduroy-like effect. Those who prefer a more traditional look can pay more – real wood on five faces costs £1,399; high gloss piano black on all six faces is £1,599.

The 26x40x27cm (WxHxD) shape might give a distinctly nostalgic impression – I couldn't help thinking 'Linn *Sara*' whenever I looked at it (even though this *RED 100* has a smaller main driver) – but it makes good sense in creating a strong enclosure, has sensible internal dimensions, and an overall enclosed volume of around 18litres. (A rather smaller *RED 50* is also currently under development, with anticipated prices of £799, £899 and £999 respectively, and a floorstander is also promised.)

The RED 100 combines a 165mm (6.5in) bass/ mid driver and a 25mm plastic dome tweeter, in a rather unusual port-loaded enclosure. The main driver has a 115mm diameter flared paper cone, a pressed steel frame, a large and hefty magnet and a 25mm voice-coil with a Faraday eddy-current shorting ring. A single pair of high quality WBT terminals protrudes from the back of the speaker and feeds a relatively simple crossover network, which is claimed to operate around 2.2kHz at an acoustic total of 12dB/octave. Just a single component is in series with each driver - a 'closed field' inductor is used on the bass arm, and a capacitor is in line with the tweeter. Tweeter attenuation is by a modified Zobel network rather than a simple resistor or tworesistor L-pad

The whole thing weighs 11kg, which is a decent enough figure for a stand-mount, but in context the cabinet approach and construction is rather unconventional. The designer acknowledges the importance of the BBC 'thinwall' approach, but also its low frequency limitations, and has opted for an entirely undamped but well stiffened enclosure in 16mm MDF (19mm front baffle). The interior has two multi-function horizontal shelves drilled with holes, positioned above and below the main driver and separating the driver from the port below the shelf. One purpose is simply to stiffen the whole box, but another function is to filter the midrange's rearward output so that it stays within the central section and well away from the port, while at the same time allowing all of the internal volume to take an active role in the bass reflex loading. The port itself is tuned to a relatively low 33Hz here, but a crucial factor is probably the lack of the usual internal damping materials, which some consider may be responsible for 'slowing' the sound. (The

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internal perforated partitions will inevitably add a measure of damping.)

Measurements

Using our in-room far-field averaged technique, the sensitivity comes out at around an average 87dB, though this ought to be seen in the context of decent bass extension (-7dB at 20Hz in-room) and an relatively easy amplifier load. The latter stays above 60hms all the way up to 11kHz, falling to 3.30hms at 20kHz (where programme energy will be vanishingly small).

The frequency response looks fairly well ordered, an essentially even trend characterised by a clearly deliberate trough around the presence zone. This consists of two dips, one at around 1,2kHz and then a second dip at the 2.2kHz crossover frequency. Rather more worrying was an obvious +4dB resonance 'spike' at c850Hz. I took this up with the designer who admitted that it existed and that he was aware of it. He also told me that he'd found a way to eliminate it, but having done so found that the speaker had lost a good proportion of its 'magic'. He therefore decided to bite the bullet and learn to accept (and ultimately ignore) the spike.

Sound Quality

I also found it very easy to accept (and ultimately ignore) that spike, as the *RED 100* basically sounds very clear and open and has a beautifully judged overall balance. True, the sound can get a touch aggressive when played at very high levels, and it might have had a bit more bass weight and warmth. But the speakers do sound rather bigger than they look, and above all they know how to stop as well as start, so they bring a rare dynamic crispness to the proceedings.

A slightly 'woody' quality seemed audible on some material, and might have been related to the lack of internal damping, but it wasn't unduly distracting. Having brought the speakers in for an extended listening session, after making the usual notes I found I had little desire to replace them, and in fact spent a very happy week listening to them across a wide range of material and sources, and finding the music they were reproducing exceptionally communicative.

While there's no avoiding the superior top-to-bottom coherence or the fine stereo imaging, the *RED 100* is really all about speed and dynamic literacy, rather than issues of tonal balance or coloration. I recall experimenting with the removal of acoustic damping twenty something years ago, after Jimmy Hughes recommended giving it a try. Results then were somewhat equivocal – I could hear

both advantages and disadvantages. What I suspect Kauffman may have succeeded with the *RED 100* is to gain the benefits of removing damping materials without the attendant drawbacks, and that is an impressive achievement.

Conclusions

The *RED 100* might – indeed does – look a little weird, and might indeed have a significant measurement flaw, but a quick listen should be enough to convince a listener that its sound quality is rather more than a little bit special. It has dynamic expression and coherence to die for, and that ensures excellent musical communication.





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Martin Colloms, Publisher

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've reviewed three loudspeaker models in this edition of *HIFICRITIC*, from Dali, Russell K and B&W, and the results are best described as paradoxical, for several reasons. That's partly because evaluating loudspeakers is by no means straightforward. I could rate the three purely on sound quality grounds, which I guess is what one is supposed to do, but to be truly honest, sound quality is only one of several elements that persuade a customer to make a purchase.

One paradox was that the least costly speaker – the Russell K *RED 100* – also turned out to be the best sounding. But I'm equally convinced that the B&W will be the bigger seller, simply because it looks so much more fashionable. Styling and fashion play major roles in loudspeaker sales, and that observation explains all sorts of other paradoxes that I could identify.

For example, although a new pair of *RED 100*s are a rather tempting prospect, I reckon the best deal in loudspeakers today is – and has been for a great many years – a pair of secondhand Spendor *BCIs*. True you won't achieve massive loudness, given the limits imposed by modest sensitivity and power handling based on the glues that were available for voice-coils 40 years ago. But the sheer sound quality remains hard to beat even today (especially through the midband, with that lovely alnico magnet motor), particularly if they're used on decent rigid stands.

The trouble is, of course, that secondhand *BC1*s are not particularly trendy right now, and a pair of used *LS3/5a*s would probably cost twice as much, even though they're nowhere near as good, simply because they're currently far more fashionable.

There's definitely an attitude out there, fostered no doubt by many vested interests, that new is necessarily and automatically superior to old, whereas my experience is that, if not exactly the contrary, it's certainly by no means necessarily true.

Over the years, those vested interests have actually been exceptionally successful in foisting all manner of technological changes upon most of us. Only determined rearguard actions by those who really care has prevented the disappearance of, say, valves and vinyl, in the face of the purported 'improvements' that solid state and CD have brought to the hi-fi party.

It's all too easy to dismiss the sometimes glorious past as mere nostalgia. I'm not saying that everything old is necessarily good – far from it; many of the creations from the past are best forgotten, no question. But the same is true for so many of the new components appearing today. How many will actually stand the test of time?

One relatively new brand that I fondly expect to survive and prosper is Vertere, led by ex-Roksan design engineer Touraj Moghaddam. I've mentioned his cables more than once in this column, and have used them regularly for the last two or three years. But at the beginning of this year he shocked the hi-fi world by introducing a *Reference* tonearm that doesn't use bearings as such and costs an eye-watering £27,000 (of which the cable accounts for £6,500).

That's fantasyland as far as I'm concerned, but he also has a much less costly (£1,800) SG1 tonearm, with bearings based on a unipivot variation, and came down to fit one onto my much-modified hybrid Linn in place of its regular Rega RB1000 tonearm.

As usual I just let him get on with the installation, and was quite startled by improvements that I could hear easily enough after he'd done all he could. Despite this very promising start, certain details have still to be finalised, which is why this is just a sneak preview rather than a more extended discussion.