

Five Alive

KEF's new R5 floor standing loudspeaker brings life to performance, Noel Keywood finds.

KEF's big, black, new R5 floorstanders have technological attitude. KEF was founded on hard engineering analysis back in the 1960s, made its name that way and continues with the tradition today, now as a successful part of Gold Peak (China). And you'll get the whiff of this background – or more if such things interest you – in all of the company's literature for the new R5. So what I'm looking at here is an unashamedly advanced loudspeaker in technological terms.

What we need in a loudspeaker is one that commits no great sins and suits our expectations. And the R5 is neatly tailored to do just this I found. It's a high technology design in which subtle but appropriate balances have been made to ensure it appeals, since with loudspeaker design you have to get it all right – and then ensure it sounds good. Technological perfection isn't the same as sonic acceptability and KEF have struck a nice balance with this compact three-way floor stander aimed at typical



UK living rooms; an R7 and R11 exist for bigger spaces and higher sonic power.

Standing one metre high (1070mm) the R5 is sized like most of its showroom rivals. KEF have kept the front narrow at 177mm to improve radiating characteristics they say, whilst depth is 350mm including terminals. For stability the R5s come with bolt-on outrigger feet that take width to 270mm total. Our 'speakers were nicely finished in a deep gloss black but white and walnut are options.

Because the cabinet has many internal bracing panels it is heavy at 27.3kgs and feels very solid and rigid when being moved. Adjustable spikes with spanner are supplied, plus foam bungs for the ports to damp down bass if necessary – something that can be needed for smaller rooms to lessen their boom. Cups are supplied to fit under the spikes to protect wooden floors.

The R5 features KEF's well developed Uni-Q driver where an aluminium dome tweeter is placed concentrically within an aluminium cone mid-range unit, giving a single assembly that works across a very wide range, in the R5 from 400Hz up to 20kHz. Concentricity and the closeness of the tweeter to the cone's apex together eliminate the usual phase cancellations and asymmetric behaviour of most three-ways, for a more focussed and consistent sound both at the listening position and around the room. This unit sits in a shallow sealed chamber and it appears from KEF's exploded diagram rear radiation is absorbed by a foam ring. Tangerine wave guides direct high frequency sound across the surface, resulting in an unusually smooth result on and off axis, our measurements show. There's little difference between pointing the cabinets straight down a room or toeing them in to fire direct at listeners, the Uni-Q is so well honed.

Above and below the Uni-Q sit hybrid 130mm bass units with a shallow concave aluminium front face backed by a paper cone. They both work into the rear cabinet whose chambers are coupled, but the upper and lower ports are tuned differently, the lower one working at a lower frequency making it most likely to excite a small room and the best initial target for a bung I suspect.



Twin ports with staggered tuning, bi-wire terminals and sturdy cast alloy outrigger feet for stability. The spikes are adjustable – spanner supplied!

"Their resolution of fine detail is superb, illuminating orchestral works"

Note that all drive units have an aluminium face for consistency of sound character.

The rear carries a bi-wiring panel with integral links, heavy terminals being able to accept 4mm banana plugs, spade connectors or bare wires.

SOUND QUALITY

For the most part I drove the R5s from our Creek Evolution 100A amplifier, via Chord Signature cables. Sources were an Oppo BDP-205D Universal player acting as a CD

transport, feeding Chord Electronics M Scaler via its own optical cable, connected to an Audiolab M-DAC+. A MacBook Pro fed DSD from Audirvana Plus straight to M-DAC+, and hi-res PCM to M Scaler. The 'speakers were run in for 50 hours.

Spinning Jan Akerman (CD) singing *Am I Losing You* – a simply structured track with vocals over guitar – the R5s were vivid in portrayal. Rather than the slight sense of thin-ness and sharpness that comes from raised treble of so many current loudspeakers, the KEFs offered a timbrally rich insight into the instrument, plucked notes having speed without laceration. Akerman's vocals were focussed and stable in front of me, pushed forward and gripping. Impressive.

With uncompressed Rock tracks (CD) of wide dynamic range these KEFs gave an in-my-face delivery – especially of vocals – that was both refined yet viscerally exciting and very stable in image outline.

As measurement suggested the R5s sound full bodied – but not bloated – and bass was both firm and strong, if not heavy in our large (25ft long) room. There was stabbing power to drums from Marilyn Mazar's *Drum Impro*, with solid and controlled low end follow up. KEF know how to engineer in good low end control and the R5s offered a fine demonstration of their knowledge here.

Nigel Kennedy's *Stradivarius* violin was well lit and firmly delivered. The strong midrange presence of these 'speakers pushed

it out at me and I was thankful for the healing qualities of the ESS ES9038 chip in Arcam's CDS50 player, that I used early on, to make 16bit from CD palatable – because the sound bordered on edgy so much was being revealed. At times with complex material like this I also felt the midband could be usefully more transparent in nature.

The R5s Uni-Q unit is both obvious and revealing of what's being fed in – which was challenging at times. Fine if what's being fed in is fine – high quality from vinyl

for example – but I was getting to hear some of the problem’s within recordings: Nigel Kennedy’s violin on CD always had a slightly edgy sheen to it for example – and the R5s made this quality of the recording more obvious. It’s a phenomenon I’ve muttered about before with good hi-fi products: the sound doesn’t necessarily get better!

Salvation came both from smooth DSD digital, and preened PCM digital from Chord Electronics M Scaler (see review in this issue). Via M Scaler the R5s better looked into the Stradivarius, revealing both its qualities and Kennedy’s playing, his vigorous tempo made apparent by their clean rendition.

The consistent tonal signature of the R5s was made clear with Loreena McKennit’s *The Gates of Istanbul* (CD), as well as their bass. The opening and continuing plucked bass had strength and yet was firm. Bouzouki came through with natural clarity and a lively dynamic. The whole track hung together beautifully.

Fleetwood Mac’s *Dreams* (24/96) kicked off hard and fast from Mick Fleetwood’s drum kit, Stevie Nicks vocals were pushed out forcibly and cymbal crashes crashed – a quality of the recording. Bass was supple and speedy, and in good proportion.

The Minnesota Orchestra

playing Korsakov’s *Dance of the Tumblers*, from *Snow Maiden* (24/96), came over full sized and powerful, a lovely smooth swathe of instruments set out left to right in front of me. Violins were made obvious but I could hear their contribution in succinct form.

The R5s also revealed differences between Tchaikovsky’s *Serenade for Strings* (2L, Norway) as DSD64 (2.8MHz) and DSD 128 (5.6MHz) with a slightly finer and more intricate sound from the latter. Their resolution of fine detail is superb and, with strong projection, illuminates orchestral works.

CONCLUSION

KEF’s new R5s come over as all-of-a-piece: there’s no stinging treble nor disconnected bass. They are mid-band projective and this



KEF’s unique Uni-Q driver array, with central tweeter firing out through a shallow mid-range cone, dispersion controlled by Tangerine waveguides.

means they do need a very good source or you end up hearing – as I heard – problems in the recordings. That’s the other side of listening to KEF’s revealing Uni-Q drive unit, something you won’t hear elsewhere. I almost apologise for having to say “gentlemen, look to your sources” (women too!) for these ‘speakers, but if you do then the R5s deliver a sound that’s impressive.

MEASURED PERFORMANCE

Frequency response of the KEF R5, using third-octave analysis of pink noise, runs smoothly from 60Hz to 20kHz within +/- 3dB limits. There’s some slight variation across this range but overall smoothness of the trace shows this is a loudspeaker free from the myriad of minor local resonances that add colour.

Starting at the top end first – meaning high treble – the aluminium dome tweeter that sits behind a ‘Tangerine’ waveguide delivers an extraordinarily smooth response free from peaking, on-axis and off-axis; it is consistent in delivery wherever you sit or however the speakers are angled. Lack of lift or peaking means the R5 will have a top end free from the obvious emphasis of so many of today’s loudspeakers, and also lacking their sharpness, incision and quite often the coarseness that accompanies lifted treble due to emphasis of distortion, especially from CD. So smooth and colour free treble.

Output below 1kHz lifts a little, by +2dB at most, to add some sense of body to the sound; without this a loudspeaker can sound starkly dry. Low bass rolls down smoothly below 80Hz, output supported by the upper port that peaks at 50Hz (red trace) and the lower port that has broader output stretching from 30Hz to 45Hz (orange trace). The R5 cuts off sharply below 30Hz, so it delivers deep bass but not subsonics. It has been designed to work close to a rear wall in medium sized room of around 16ft-20ft long.

Sensitivity was 87dB sound pressure level (SPL) produced from one nominal Watt (2.8V) of input, exactly as quoted. However, the R5 draws current to achieve this, being a very low impedance design with a 3.5 Ohm d.c.r. and a measured impedance with pink noise of 4.7 Ohms. Our trace shows there are no residual reactive peaks, due to offset-tuned bass chambers or a compensation

network. Amplifiers of 40 Watts per channel will go loud with these ‘speakers.

The R5 is well engineered and technically accurate. **NK**

FREQUENCY RESPONSE

Green - driver output
Red/orange - port output



IMPEDANCE



KEF R5 £2,000



OUTSTANDING - amongst the best.

VERDICT

A focussed and cohesive sound with great insight and fine bass.

FOR

- midrange insight
- controlled bass
- excellent build and finish

AGAINST

- lack transparency

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