

## ● REVIEW

## Quad ERA-1

A new pair of headphones from Quad – surprisingly, the company's first venture into this market sector

The main surprise, of course, is that it's taken Quad this long to come up with a pair of headphones.

After all, the company already has a dedicated DAC/headphone amplifier, the £1200 valve-powered PA-One, on its books – and rather fine it is, too.

Anyway, the first Quad headphones are with us, and the ERA-1 sells for just shy of £600, which places it firmly into the luxury sector, but is actually very sensible pricing when you look at the design, construction and *modus operandi*.

The ERA-1 is a planar magnetic design, using a technology dating back at least to Yamaha's work in the 1970s – with what it then called 'orthodynamic' headphones – but currently enjoying something of a revival. Rather than the dynamic drivers found in most speakers, which are miniature variations on the moving coil 'cone and motor' technology found in loudspeaker drive units, planar magnetic drivers use a charged diaphragm mounted between two static magnetic plates: by varying the charge through the 'tracks' on the diaphragm with the signal being fed into the driver, it can be made to move relative to the magnets, thus producing sound.

Benefits? Well, the whole diaphragm moves as one, unlike a cone driven from the centre, and it can be made ultra-light and thus more responsive. That ensures all frequencies arrive at the ear in phase, as they do in nature, without the shifts possible when a cone moves, due to flexing in the cone and thus parts moving at different speeds – in other words, cone break-up.

The downside is that a very strong magnetic field is needed to get the diaphragm to do its stuff without needing huge amounts of power, which tends to make the magnets used quite chunky. That can increase the weight of the headphones, and yes, planar magnetics do have a reputation for being a bit harder to drive than some conventional designs.

The planar magnetic is seen as a good halfway house between the variations on moving coil technology accounting for the majority of the market and the ultra high-end electrostatic headphones out there. Planar magnetic technology brings a lot of the benefits of electrostatic headphones,

including light, fast diaphragms, but without the need for the dedicated high-power electronics electrostats need to drive them.

The planar magnetic driver in the Quad ERA-1 is an in-house development. The magnetic system is designed to maximise sensitivity, and the suspension to suppress non-linear vibrations for an accurate piston motion, which after all is the aim for any driver. An open-back design, like all planar magnetics, the ERA-1 has a metal cavity behind the driver designed to provide an optimal acoustic effect.

In addition, the driver is designed for high sensitivity and low impedance, which Quad says makes them as suitable for use with portable players as they are with high-end mains-powered headphone amps.

The headphones come with two sets of ear-cushions – one trimmed in leather, the other in a soft fleece over latex – offering users a choice to suit personal comfort and also a degree of sonic tuning, and the supplied cloth-covered cable is a generous 215cm long, terminated with separate plugs for each earpiece and a 3.5mm stereo plug, with a 6.3mm adapter supplied. A rather large fitted carrying case is also part of the package, as the headphones don't fold for transportation.

#### PERFORMANCE

I didn't have the matching PA-One headphone amp for this review, but there were alternatives to hand, so I used everything from the output of my iPhone 8 Plus via the Apple adapter to the little Shanling M0 player, Chord's Mojo/Poly combination and the decidedly high-end iFi Audio Pro iDSD. What quickly became clear was that the Quad headphones don't need a huge amount of power to sound good, but that they also responded as the amplification with which they were used was improved.

They performed well on the end of the tiny Shanling player, even if these possibly aren't the headphones you'd want to take travelling with you, not least due to their size, the somewhat bulky case and the long cable. Playing a range of music all the way up to DSD the openness and effortless nature of the Quad headphones was notable, and they sounded convincing



#### QUAD ERA-1

**Type** Headphones

**Price** £599.95

**Drivers** Planar magnetic

**Sensitivity** 94dB/mW

**Impedance** 20ohms

**Weight** (with cable) 420g

**Accessories supplied** 215mm cable, 6.3mm adapter, two pairs of ear-cushions (leather/fleece fabric), case

**quad-hifi.co.uk**

with the LSO/Davis recording of Sibelius Symphonies Nos 3 and 7 in 96kHz/24bit on LSO Live, with an excellent sense of space and impact, and fine detail, on the end of the Chord portable DAC/amp.

With the factory-fresh review set I initially encountered some mechanical creaks when moving my head, but after a little use, some working of the tilts and pivots of the headband, and fine adjustment to get the best fit that was soon gone, and it's also worth noting that there's no mechanical noise transmission from the cable, not least due to its soft cloth jacket.

But it was with the iFi DAC amp, which is admittedly in the region of £2500, that the Quad headphones really shone, showing just what they could do with the minutiae of a recording while still delivering a sound as rich, bold and 'out of the head' as one could wish. With Jonathan Freeman-Attwood's sparkling 'An English Sett for Trumpet' recital (on Linn Records), the sound of the solo instrument simply hung in space in a most attractive manner, while even when working hard with some Wagner at 'exciting' levels the Quad headphones kept their composure, and maintained their clarity.

Simply, these are headphones worth auditioning if you are considering a purchase at this luxury level: their bulk means they may not quite be the 'use with anything, anywhere' solution their maker suggests, but for home listening they have much to commend them. **G**