

Quad Revela 1

Quad's first new speakers in some seven years feature an evolved version of the ribbon tweeter seen in its 'Corner Horn' of 70 years ago. Now, of course, they come in pairs!
 Review: Ken Kessler Lab: Paul Miller

For nearly nine years, I have been listening to Quad's ribbon-hybrid S-1 speaker – the brand's smallest two-way box-type system – as part of my day-to-day desktop set-up. When they were launched, I revelled in the realisation that they were a throwback to Quad's first ever loudspeaker, the Corner Ribbon of 1949 [see PM's boxout, p59], and the all-new Revela 1 tells you that the company's boffins, based in the UK and China, haven't been sitting idle since 2015.

At under £500 per pair, the 285x156x240mm (hwd) S-1 was a beer budget bargain, and the Revela 1 looks to repeat the experience in much the same way as the floorstanding £3499 Revela 2 updates Quad's S-5 [HFN Jan '16]. Admittedly, at £1799 per pair, the Revela 1 is far costlier than was the S-1, but its value, as we will discover, is arguably higher still. I was not prepared for the leap in performance...

WORTH THEIR WEIGHT

For starters, the Revela 1 is substantially larger at 395x246x280mm (hwd) and its 27x60mm 'Quad True Ribbon' is much bigger than the S-1's 12x45mm variant. And, where the S-1 used a 100mm woven Kevlar bass/mid driver, the Revela 1 is fitted with a 165mm 'advanced fibre composite' cone unit called the 'Reveal' (lending the speaker its name) crossing over at 2.9kHz. It features a damped pulp/aramid fibre cone, smoothly attached to rubber surrounds and with care taken to avoid reflection of soundwaves at the boundary [see PM's Lab Report, p61].

While the dimensions immediately tell you that these are manageable standmounts, they are deceptively heavy, the box containing the two weighing just under 25kg. Quad doesn't specify the weight, but I'd guess 11kg each. The bulk can be attributed to the exquisite cabinet, one of the most impressive things about the Revela 1 being the way it looks. It is simply gorgeous, a mix of gloss-lacquered wood veneer inserts and black gloss top, back, bottom, baffle and trim. All edges are rounded – this is a low-diffraction enclosure

– giving it an organic mien, and it's a visual treat with or without Quad's charcoal grey grilles, thanks to the drive units being finished to display standards.

I'm not even sure if the photos can do it justice. You really have to see this speaker in the room on a pair of stands to appreciate how luxurious it is, not looking out of place standing next to the sublime Franco Serblin Accordo Goldberg [see p42]. Yes, the Revela 1 delivers that level of pride of ownership and perceived value.

Although Quad offers dedicated stands for an extra £700, they weren't supplied for the review, so I used my references, Music Tools' Tool One (67cm version). Interestingly, as the Revela 1 arrived at the same time as the Accordo Goldberg, I simply replaced the Goldbergs with the Revela 1s, and the swap even involved a similar toe-in. Also shared with the Accordo Goldberg is the need to stand in free space, so don't be fooled into thinking these can work on shelves.

ON TARGET

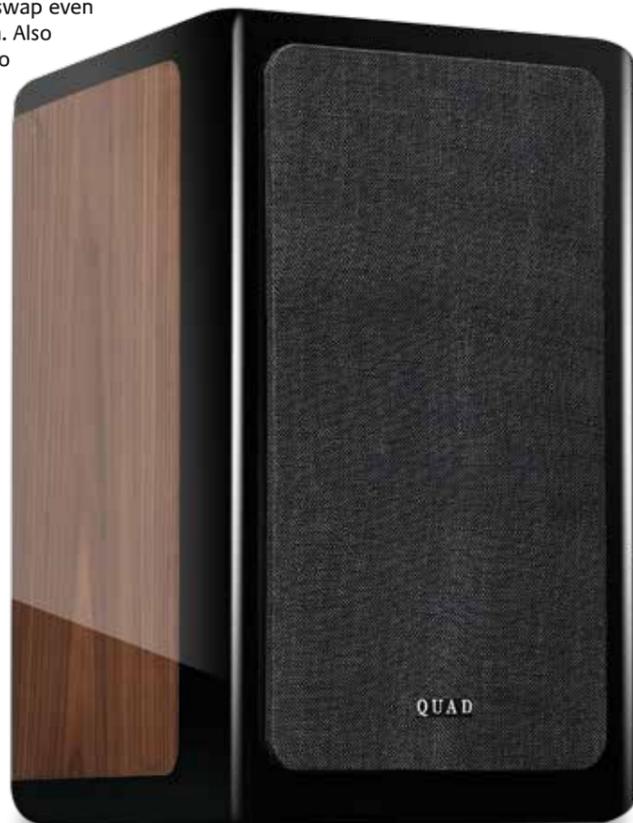
It's not just that close proximity to the wall would compromise the rear port, for the focus of the ribbon tweeter is such that the Revela 1 needs precise targeting of the listener. However, while they share the Goldbergs' creation of a proscenium within the boundaries of the

RIGHT: The gloss-finished, radiused cabinet comprises 'optimally stressed' and braced panels and is damped with foam and long fibres. Grille is magnetically attached

speaker they do not create much of the soundstage beyond their outer edges, so you will need to experiment with the size and shape of the triangle formed by their positioning relative to the hot seat.

Quad has configured the Revela 1 for single-wiring only, instead of the bi-wiring/bi-amping afforded by the S1. Even if bi-wiring is falling out of favour, much to the chagrin of cable vendors, the chunky multi-way binding posts fitted to the back of the Revela 1 are exceptional, being substantially made to afford plenty of grip when tightening, and able to accept bare wire, spade connectors or banana plugs.

These are simply indicative of how everything about Quad's loudspeaker defies its price category – even the magnetic grille has a luxury feel to it.



Most people of an audiophile bent will play the Revela 1 without its grilles, but they will find that if the grilles are needed because of the presence of small children or sharp-clawed pets, the sonic penalty is far from disastrous.

ALL IS REVEALED

Given that I simply swapped the Accordo Goldbergs for the Revela 1s, a further coincidence suggested beneficence from the audio gods: I didn't have to change amps because Quad's new standmount is no more hungry than the pricier Goldbergs, with not dissimilar sensitivity and impedance. Both enjoy being hammered and, my goodness, do these like largescale works and challenges to the woofers.

For those interested in how this reviewer makes his life easier, I also used the same recordings for both auditions, though I am not normally in 'assembly line' mode. This is not to say the Revela 1s are comparable to the Accordo Goldbergs, which at nearly six times the cost, operate on a different plane, but it made me even more aware of the Law of Diminishing Returns. The added refinement of the dearer speaker, as well its undeniably luxurious presence, comes at a cost.

Following the same regimen, like a mini version of the old *Hi-Fi Choice* round-ups, allowed me to streamline the proceedings. I started with The Who's live rendition of 'Baba O'Riley' from *Who's Next/Life House* [Polydor 3585826 CD]. This was a shortcut to hear what the Revela 1 could do with

recreating a concert experience, and the size and scale of the performance were so imposing that I was yet again assured that sometimes size *doesn't* matter at all.

Of course, live Who means bombast, but it wasn't the way the Revela 1 went loud so much as how the speakers opened up spatially, even if they never quite disappeared completely from the audio picture. On some recordings, especially studio-assembled works where there is heightened, almost exaggerated instrument positioning, closing one's eyes doesn't make their location undetectable. This isn't a deal-breaker, so much as an exhortation that they should be sited with the same care as you might apply to more esoteric and demanding loudspeakers.

LISTEN UP

What Quad's Revela 1 begs from the outset (and I wonder if this is simply inherent in moderately hungry/moderately sensitive designs) was a need to be worked hard. They sound of their best when you crank up the levels, which immediately precludes them from being used for background music. The Revela 1 is a speaker for music lovers of the old school, who actually sit and listen. This trait applies even to minimalist or quiet pieces, such as 'Dirty Work' from Steely

BELOW: Seen atop Quad's custom stands, the Revela 1 hosts a 27x60mm ribbon tweeter [see boxout, below] plus a 165mm 'Reveal' bass/mid driver with a damped pulp/aramid fibre cone



I still mourn for Apogee's Scintilla full-range ribbon'

REAL RIBBONS

Designed in 1949 by Peter Walker of the Acoustical Manufacturing Co. (latterly Quad), some 600 Corner Ribbon 'hybrid' speakers were built over the next six years with owners subsequently searching for a second enclosure to fulfil the dream of stereo sound in the late 1950s. Peter was latterly quoted as saying his Corner speaker design 'Had a big woofer for bass and a ribbon for highs. It gave a lot of boom and sssss, you know, it sounded hi-fi, but didn't sound very natural. Still, it gave the people what they wanted'. In practice the 'boom' was offered by a labyrinth/reflex-loaded 12in twin-cone Goodmans Axiom 150 bass/mid driver while the sizzle issued from a horn-loaded 1/2in-wide corrugated aluminium strip positioned between two pole-pieces.

For matching with amplifiers of the day, the 'short-circuit' ribbon was transformer coupled, as is Quad's modern variant, albeit one offering a wider bandwidth and lower distortion. Moreover, the latest ribbon is, in fact, a laminate of aluminium foil and polyester, improving both power handling and damping, just as the modern neodymium magnets significantly improve sensitivity. Like all true ribbons the foil strip is driven uniformly over its entire surface while also profiting from vanishingly low inertia. With the benefit of hindsight, it's clear to see the direct line in this thinking to the full-range electrostatic loudspeaker first demonstrated by Peter Walker in 1956. PM

LOUDSPEAKER



LEFT: The Revela 1's two-way 'phase-compensated Acoustic Butterworth' crossover does not support bi-amping or bi-wiring – hence the single 4mm cable binding posts. The large reflex port includes longitudinal splines to smooth the airflow at low bass frequencies

But this isn't all about the ribbon. The Revela 1's woofer is a game-changer. The opening bongo patterns on Steely Dan's 'Do It Again' were as rich and real as one could require if veracity matters. And once more these speakers were able to present an instrument in the listening space with convincing dimensions, the right amount of attack and decay, and freedom of artifice – no aggravating dryness, in this case.

Dan's *Can't Buy A Thrill* [Analogue Productions CAPP134SA SACD].

For those of you unfamiliar with the track, it features a Jerome Richardson sax solo so vivid, so spotlighted, that it has been a demo favourite for a half-century. Here the tweeter reminded me of why I still mourn the departure of the Apogee Scintilla full-range ribbon [*HFN* Sep '85 & Jan '11]. Detail was such that one could hear the sax reed, but that level of forensic insight was secondary when compared to the presence of the entire instrument in three dimensions. And *that* needed a turn of the volume control.

GRACE AND IMPACT

There was no hint of break-up, clipping or compression, and yet the excessive playback levels did not belie the fact that the song is gentle, sorrowful and demanding of refinement. If an excess of decibels suggests a dearth of finesse, the Revela 1 dismisses that notion with aplomb. It's telling you that even with a budget just above entry-level, you can savour grace and impact at the same time. It's a heady combination, and not one I anticipate of a loudspeaker costing half the price of a bottle of Petrus.

As my ultimate arbiter, I always listen to something from outside my usual diet and comfort zone. So gripping is the performance of Quad's Revela 1 – bang for the buck aside – that I actually sat through the whole of Disturbed's (very) heavy metal *Immortalized* [Reprise 936249262-6 CD] before track 11, the American band's astounding take on 'The Sound Of Silence'. Yes, I immersed myself in an entire disc's worth of sandpaper vocals and ferocious instrumental ammunition, but I still left it awestruck. 🙏

HI-FI NEWS VERDICT

If there are any issues with Quad's Revela 1, it's that it is *too* good. The past couple of years have shown the market is awash with amazing speakers at all price points, but the Revela 1 doesn't just excel at £1799: if I hadn't known the price, the sound and build would have had me guessing £5000. Grab a pair before Quad figures out they're underpriced. Even with nine months to go, this is my product of 2024.

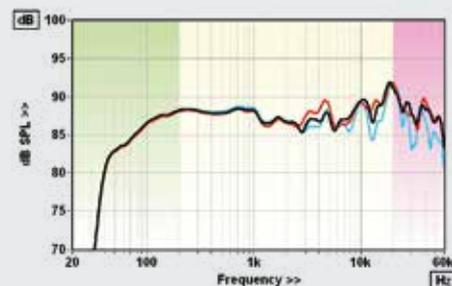
Sound Quality: 89%



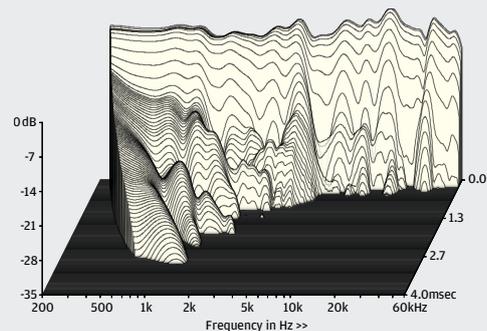
QUAD REVELA 1

Quad is realistic in its claims for the Revela 1 – neither over-rating its sensitivity (86dB/2.83V/1m) or bass extension (40Hz re. -6dB). We'll cover off the detail below, but the Revela 1 is arguably a little tougher to drive than Quad's 6ohm nominal might suggest as the '4.1ohm minimum' is closer to 3.6ohm/221Hz in practice where the sub-100Hz phase angles of +44°/-55° also contribute to a 1.7ohm/130Hz EPDR (equivalent peak dissipation resistance). Above the 2.9kHz crossover, the ribbon tweeter [see boxout, p59] never drops below 6.6ohm (EPDR is >3.5ohm) so the Revela 1 is not a mean HF load for the amplifier. The forward response shows a rise to 20kHz once the ribbon takes over [see Graph 1], offsetting the falling power response of the ribbon due to its reduced vertical dispersion. The latter largely accounts for the response errors of ±3.3dB and ±2.9dB, respectively, and the 1.6dB pair matching, but note the extension of the ribbon out to 60kHz [-6dB re. 10kHz, pink shaded area]. The grille, meanwhile, is best left off for optimal listening [blue trace, Graph 1].

As is also clear from the response plot, the Revela 1 enjoys a far higher 88.2dB/1kHz sensitivity than claimed (or 87.3dB from 500Hz-8kHz) while distortion is good to within ~0.4% from 300Hz-20kHz (re. 90dB/1m). Moreover the relatively 'clean' CSD waterfall [see Graph 2, below] shows no severe breakup modes associated with either driver. The 165mm fibre composite bass/mid unit works over a 67Hz-1.8kHz (-6dB) bandwidth, and with the keenly tuned 40Hz port – also free of spurious output – achieves a very creditable 44Hz bass extension (-6dB re. 200Hz). Overall, the Revela 1 is a very fine all-rounder. PM



ABOVE: Response inc. nearfield summed driver/port [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w grille, blue



ABOVE: The compact cabinet is well damped while only low-level modes are seen from mid and ribbon

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83V – 1kHz/Mean/IEC)	88.2dB / 87.3dB / 86.0dB
Impedance modulus: minimum & maximum (20Hz–20kHz)	3.56ohm @ 221Hz 27.5ohm @ 73Hz
Impedance phase: minimum & maximum (20Hz–20kHz)	-55° @ 92Hz +48° @ 812Hz
Pair matching/Resp. error (200Hz–20kHz)	1.6dB / ±3.3dB/±2.9dB
LF/HF extension (-6dB ref 200Hz/10kHz)	44Hz / 60.1kHz/60.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	1.1% / 0.25% / 0.35%
Dimensions (HWD) / Weight (each)	395x246x280mm / 11kg