



# Game changer

Quad has dragged ribbon driver tech firmly into the affordable arena with its new S Series speakers. **David Vivian** listens in

**A**s legacies go, Quad has a whopper. The Electrostatic – first produced in 1957 and perhaps the one loudspeaker that truly deserves iconic status – has, in a way, been an easy act for the company to follow – the ever-evolving brand statement that today – as the ESL 2812 and 2912 – continues to put rival-shrivelling substance behind the advertising boast that Quad’s approach is the closest to the original sound.

More challenging, understandably, has been the endeavour to forge a

**Presentation is outstandingly transparent, natural and unforced**

similarly copper-bottomed reputation for its second-tier speakers that, in common with the cost competition, have to make do with conventional cabinets and dynamic drivers. Well, a tech step change has intervened, and maybe not before time. Ribbon tweeters – held, by many, to be fundamentally superior to dome designs – have been finding their way into more modestly priced speakers in recent years. Quad’s latest range, the S Series, brings a bespoke ribbon to a market sector where domes have traditionally been the norm. It’s a bold initiative to capture a flavour of that airy and finely-textured ESL transparency for those of us with more frugally tailored pockets.

And none has a better chance of redefining the price versus quality paradigm than the baby of the new five-strong family, the standmount S-1. Small enough to squeak into the ‘cute’ category, it measures just 285mm high and its specially designed ribbon is accompanied by a 100mm Kevlar-coned bass-mid driver.

The S Series lineup is completed by a larger standmount, the S-2, two floorstanders (the S-4 and S-5) and a centre speaker for home cinema called the S-C.

This isn’t the first time Quad has employed a ribbon tweeter – we have to look back to its first speaker, a 1949 design known as the Corner Ribbon, to find it. If the sonic advantages were appreciated then, the execution was more precarious as the drivers were delicate affairs prone to burning out at higher, (valve-generated) volume levels. The S-1’s ribbon, developed specifically for the S Series, uses a sandwich construction and is said to be robust enough to cope with modern, high-powered solid state amplifiers.

Fully immersed in a powerful magnetic field to accomplish its dual role of being both the ‘voice coil’ and the sound radiator, the driver has been designed and tailored to excel in several areas, claiming excellent transient response and musical detail while staying smooth up to and beyond the normal high-frequency hearing range. Ribbons typically have wide dispersion characteristics making ‘sweet spot’ listening less critical. But Quad has sought to limit vertical dispersion to avoid floor and ceiling reflections, with the aim of keeping the pristine treble performance at listening seat height.

The Kevlar weave mid/bass driver, here in its smallest 100mm guise, is a more familiar component and hands over to the ribbon tweeter via a sophisticated multi-element crossover network. The rear-ported, 10.7-litre cabinet is remarkably inert, thanks to the layered panel construction of MDF and high-density particleboard – factors that auger well for low cabinet colouration. All surfaces are dressed in a choice of black or sapele mahogany wood veneers or can be had with hand-lacquered piano black or piano white at extra cost. The

## DETAILS

### PRODUCT

Quad S-1

### ORIGIN

UK/China

### TYPE

2-way standmount loudspeaker

### WEIGHT

5.2kg

### DIMENSIONS

(WxHxD)  
156 x 285 x 240mm

### FEATURES

- True Ribbon tweeter
- 100mm Kevlar-weave mid/bass driver
- Quoted sensitivity: 84dB/1W/1m

### DISTRIBUTOR

Quad Electroacoustics Ltd

### TELEPHONE

01480 452561

### WEBSITE

quad-hifi.co.uk

S-1 also avoids being completely rectilinear by having rounded edges top and bottom for the baffle and rear panel, a design flourish that, along with the chunky and well-made bi-wire binding posts, contributes to the quality look and feel of these classy little boxes. The grilles attach magnetically to the baffles and the S-1 comes with self-sticking rubber pimples to enable a secure footing.

## Sound quality

These are tots with serious intent and I’m eager to see what they’re capable of, so the initial supporting cast comprises heavyweight Slate Audio stands and two pairs of Townshend Isolda DCT speaker cable for bi-amping with Roksan’s Caspian M2 integrated amp and M2 power amp fed by a Caspian M2 CD player and Chord Hugo DAC (HFC 386). Subsequent setups replace the Roksan amps with a single Audio Analogue Crescendo (HFC 396) and a Monitor Audio A100 (HFC 390), but I want something approaching the baby Quads’ best game to begin with.

It’s a front-end that’s really shone driving speakers many times the price of the S-1s in recent months, but any ▶

**Quad’s ribbon tweeter in the S Series looks better than its 1949 version**



## Q&A

**Peter Comeau**

Director of acoustic design, IAG



**DV:** There are several types of ribbon tweeter. How did you develop the design for the S Series and what advantages does it have over even the best dome types?

**PC:** The best ribbon tweeters are the designs based on a foil suspended in a strong magnetic field. The advantage over a dome is that the diaphragm is driven over the whole of its surface and the ribbon is its own voice coil. The disadvantage of the older-type foil ribbons is one of power handling. That is why they fell out of favour. However, recent developments in multi-layer substrates have allowed the foil to handle higher power without burning out and have brought the benefits of true ribbons back to us.

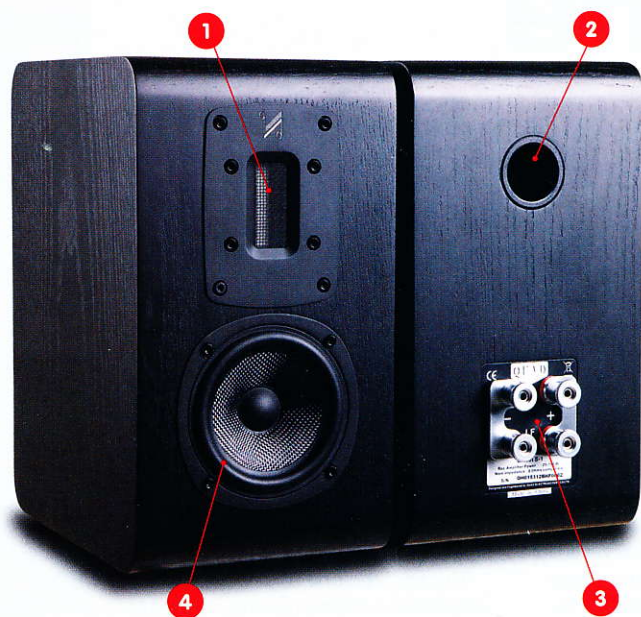
**The S-1 has a notably full and even balance with great driver integration. What are the factors that help achieve this?**

There is no one factor responsible for this. A loudspeaker has to be considered as an integrated design. Drive unit performance, cabinet construction and, of course, sensitive crossover design all have their own roles to play. I maximise driver integration through hours of computer simulation and listening test iterations to finalise a crossover that is, to all intents and purposes, acoustically seamless.

**Apart from the MDF/particleboard sandwich construction are there any other features of the cabinet that contribute to its damping, rigidity and low resonance?**

You can add to that the internal circumferential bracing, that contributes rigidity to the front baffle and breaks up the side and rear panels into smaller areas, and the 'woolly fibre' internal absorbent, which helps prevent reflections of sound back out through the bass/midrange driver.

## IN SIGHT



- 1 12 x 45mm True Ribbon tweeter
- 2 Bass reflex port
- 3 Binding posts
- 4 100mm Kevlar-weave mid/bass driver



### HOW IT COMPARES

Quad isn't alone in dangling the ribbon carrot in front of music lovers seeking that little bit extra. Ribbon tweeter stalwart Elac has things covered with its BS 142 model (HFC 371) and those wanting a more brightly lit and overt presentation than the S-1's should check it out. It doesn't have the Quad's fabulous handling of inner detail, but sounds airy, fast and fun. DALI's Ikon 1 Mk2 is another shortlist contender and unusual in having a hybrid tweeter unit that combines dome and ribbon. It's a particularly clear and detailed design that doesn't stint on aesthetics and has insight to rival the S-1's. That said, it ultimately lacks the intimacy the Quad can conjure up.

doubts that the tiny Quads might not be up to the job of reflecting the talent upstream are quickly crushed by a presentation that makes the source and amp combo sound more beguiling and musical than it has done before. This is a surprise and has me wondering if designer Peter Comeau has pulled off a masterstroke of smoke and mirrors in the voicing. Making small speakers sound convincingly full-bodied through port tuning and crossover tailoring often has side effects that are less pleasing.

But no, the only trick the S-1 seems to be guilty of is drawing the listener right in from the opening bars and not letting go. Perhaps more pertinently for Quad, the overarching 'politeness' that has tended to define the sonic signature of some previous small standmount designs from the company, has given way to a higher order of dynamic expression and immediacy and, more rewardingly still, an ability to deliver lightning-fast transients without blunting or, indeed, hyping the leading edge.

The ribbon tweeter is clearly key here as it breathes hitherto unprecedented life, structure and resolution into recordings that might previously have been considered less than sparkling examples of the digital art. Eric Clapton's *August* album is a classic test here. It can often sound muddy, harsh and congested, but the S-1's openness and ability to render subtle ambient cues believably enables it to mine subtleties and nuances that make it a much more enjoyable listen. Bass is agile, tuneful

and articulate but remarkably weighty and extended considering the bijou box and main driver.

With the Audio Analogue amp in situ and single-wired, the overall balance becomes a little more relaxed but the presentation remains outstandingly transparent, natural and unforced with an immersive but tightly focused soundstage that has a real sense of depth as well as spreading comfortably beyond the lateral span of the speakers.

## Conclusion

Anyone with preconceived ideas about the 'house sound' of Quad's more affordable loudspeakers really should arrange to audition the S-1. Yes it's refined and smooth, but it combines this with new levels of transparency, dynamic expression, musical insight and maturity. A very classy little number, then, and great value for money too ●

## Hi-Fi Choice

### OUR VERDICT

#### SOUND QUALITY



#### VALUE FOR MONEY



#### BUILD QUALITY



#### EASE OF DRIVE



#### OVERALL



**LIKE:** Very grown-up, transparent and sophisticated sound from a little speaker

**DISLIKE:** Nothing at the price

**WE SAY:** A baby box touched by the magic of Quad's most expensive designs