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EQUIPMENT REVIEW

Crystal Arabesque Mini

By Alan Sircom. Photography by Simon Marsh

Crystal's first departure from its cable range was the excellent Arabesque, a tall floorstander packed with innovative features. And as is often the way, most of those innovative features were lost in the "it's made of glass" sound-byte. Crystal's next – the new Arabesque Mini – represents no less radical a design, but because it's housed in an aluminium shell, the important aspects may also be lost in the process.

If so, it would be a shame because this is a really clever loudspeaker design. It has the same computer-modeled comma shape, with a distinctive slot-vent (not a port, not even a vent, really). It's a deceptively heavy, non-resonant cabinet, which works in a similar manner to glass and doesn't need any internal wadding. The comma shape itself extends the loudspeaker's non-parallel sides, essentially giving the vent its own enclosure, so that any port resonance or 'chuff-chuff' sounds are simply not there (more accurately, they are removed to a safe place, too quiet to be audible). It also gives the loudspeaker a very distinct 'handedness' to the design, which seems to bestow an added bonus of helping to cut back on first reflection sound interference.

This shape bestows two additional bonuses. Tails out (the standard position), the loudspeakers are good at coping with side-wall reflection and casting a wider soundstage. Tails in (left and right speakers swapping places) and what you lose in first reflection management, you gain in image depth. This allows a higher degree of room matching than normally occurs with loudspeakers; if you have a large room where a lack of image depth and 'hole in the middle' effects occur, place the loudspeakers tails in. Also, while this really isn't a small speaker for a small room (they work best 2m apart, 0.9m from rear and side walls and about 3m from the listener) the 'tails in' position does give them more scope in postage stamp sized city

dweller apartments. There is a ± 1 dB of treble boost or cut via a toggle switch on the speaker terminal panel to better accommodate less than ideal settings.

Where the original Arabesque uses a ribbon tweeter, the Mini uses a 25mm ScanSpeak beryllium dome tweeter, coupled to a 150mm ScanSpeak Illuminator long-throw mid/bass unit with its distinctive petal shaped symmetrical cone. The use of these two loudspeaker drivers highlights one of the biggest costs that is currently causing good audio prices to rocket. They both feature their fair share of neodymium in their magnets, and this rare earth is becoming very difficult and is increasingly expensive to obtain outside of China these days. As a consequence, simply spec'ing these excellent and expensive drive units makes the Mini's bill of materials higher than most two-way standmount loudspeakers. The use of pure silver-foil capacitors and Tritec air-core inductors and, of course, Crystal internal wiring aren't exactly cheap either.

The crossover components are assembled to create a second-order slope with a crossover point around 2kHz, with an effective frequency response of 40Hz to 40kHz in room. It's a relatively low Q design, which I feel tends to point it away from the more raucous elements in music. At 86dB sensitivity and eight ohm nominal impedance, it's moderately easy to drive on paper at least. Crystal suggests partnering the Arabesque Mini with amplifiers from 50-150W. I disagree; 50W isn't really enough to drive these loudspeakers to anything like their potential; doubling that figure will, however. I used them predominantly with the excellent Devialet D-Premier (a near perfect match), but toward the end of the test used them to excellent effect in Roy Gregory's system, where they were fed by a pair of VTL 450s. So long as you don't decide to play 'let's see how far we can go' with a clipped and compressed album, the extra power just gives the speakers an even greater sense of authority, solidity and rootedness.

The speakers are given a full day's running in prior to shipping, but Crystal recommends putting a hundred or so hours on the clock before serious listening. However, the aluminium chassis does create one of the speaker's few shortcomings. Toward the end of the test time, the temperature dropped suddenly by several degrees as the lengthened atypically mild November gave way to the icy blasts of December. The speaker was not at all comfortable with the temperature changes,



► understandable given that weighty cabinet can quickly get – and stay – cold to the touch. This wasn't too much of a problem, quickly solved by a 10 minute musical warm-up at the commencement of each listening session (or not being quite so mean with the central heating), but is worth noting especially for those living in colder climes.

Then there's the stand. It's a clever and elegant quartet of differently sized Perspex dowels, matching silver end caps top and bottom and a spikeless marble base. The stand comes with Ikea-like graphic assembly instructions, which are useful because the combination of one-way baseplate, four different sized rods and an irregular shaped loudspeaker can lead to some confusion. A screwdriver-like Allen key is provided too. It's ideally a two-man lift when built; not just because of weight, but because you could potentially shear the internal threads when putting too much tangential stress on those Perspex rods.

The thing about the stand is it sounds good. It's a surprisingly good visual match and an excellent physical match to the loudspeakers, and putting the speakers on more prosaic mass-loaded or open frame metal stands didn't sound anywhere near as good. Even though it is the best match for the loudspeaker. If you decide to look at the mini as a loudspeaker on its own, it comes with eight feet to accommodate the speakers on more normal stands, but with the proviso that almost always you end up with that comma tail perched precariously in thin air. So think of this as a complete package.

The first thing you appreciate when listening to the Minis is just how well they live up to the company's claim of low distortion. Crystal suggests the loudspeaker has less than 0.5% distortion above 200Hz-20kHz, while the sub 120Hz range still only doubles that figure. For loudspeakers, these numbers are fantastic, and borne out by the sound quality. It's not electrostatic-like in clarity; it's what electrostatics would one day hope to attain. This makes the performance exceptionally clean and detailed, but not dry or dull.

The Arabesque Mini has two big strengths, one literal. The speakers serve up one of the biggest sounds you'll hear from a small box. Close your eyes and listen and you'll picture far larger designs. The clever part is that it doesn't magnify, so there are no ten foot wide singers or pianos the size of Rutland. If the soundstage is small, the sound from the speakers is small. If it isn't, it isn't. In other words, this is a small speaker that isn't afraid of thinking big.

The big sound extends to the dynamic range, which is something unbelievably rare in smaller loudspeakers. Most bookshelves tend to sound dynamically compromised next to their bigger floorstander brothers. Not here, though. These are dynamic loudspeakers in every sense, and the sense of range and scaling from the quietest to the loudest is excellent. No loudspeaker can cope with the full onslaught of the Solti/Mahler Eighth Symphony, but the lack of range in small boxes tends to make it foreshortened and closed in. This is big speaker territory... and yet, the Mini aces this killer test.

Another excellent example of this is the Telarc CD of Rachmaninov's Symphonic Dances (Zinman/Baltimore SO). Most small speakers make a fair fist of bouncing along with the cadence of the melody, but in the process gloss over the close counterpoint and harmony. The Arabesque Mini has no such limitations and the full scale of the sound is presented properly. And, for a small loudspeaker playing dynamic, it goes louder than you'd expect. Not death metal, earbleeder loud, but loud enough to express the



musical content at a fair simulacrum of natural volume levels.

There are three interlinked aspects of performance that are interrelated in small speakers; dynamics, volume level and deep bass. Most bookshelves get one at the expense of the others, a few can get two out of three, but the Mini is more clever than most. It gets all three correct, by sacrificing a small amount of each aspect. That's exceptionally rare. By essentially nailing the

TECHNICAL SPECIFICATIONS

Two-way stand mount loudspeaker

Drive units: 1x 25mm beryllium dome tweeter, 1x 150mm cone mid/woofer

Frequency Range: 40Hz-40kHz (-3dB) rear wall position

Crossover Frequency: 2kHz

Crossover: second order, low Q

Power Handling: 50-150W

THD: <0.5% (120Hz-20kHz)

Max SPL: 106dB

Efficiency: 86dB @ 2.83V

Impedance: 8 ohm Nominal

Weight: 18kg (excluding stands)

Finish: Natural silver/grey or black

Price: £12,000 per pair

Manufactured by: Crystal Cable

URL: www.crystalcable.com

Distributed by: Absolute Sounds

URL: www.absolutesounds.com

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dynamics, and most of the volume, the loudspeaker's functional limits at the bottom end seem not so overt as with some bookshelf designs. A part of this is the Mini doesn't try to trick the listener with a boost around 80Hz, an old small box party trick to make upper bass sound like bass. Instead, it rolls off cleanly and naturally and – unless you are a collector of organ music and have TDL in your loudspeaker history – without complaint.

Its other big strength is it makes everything sound wonderful. Not in a rose-tinted manner, it just brings out the best in everything played through it. It's a big, bold sound, but a highly refined one. That's a great and rare combination. It's not a word I use often, but the Arabesque Mini sound is 'beauteous'. Musical instruments sound like you are hearing their Platonic Form, their archetype. There's a fascinating dichotomy in mindsets about that performance; there are those who say "Yes, but is it accurate?" who will pass up the Mini, while those who say "who cares, it sounds lovely!" will be hooked. Strangely though, I don't think this is a colored sounding loudspeaker, just one that plays to the positives of music.

There are limits – Green Day's 'Dookie' sounds more like hard rock than raw punk, and Ornette Coleman and Eric Dolphy lose some of that screeching randomness – but you have to go to the extremes to find them. Instead, it brings out the character of the instrument and the player behind the instrument in a way that is exceptionally listenable and 'beauteous'. I also suspect that there will probably not be that many Arabesque Minis being used to play 'Dookie' at high volume levels. The combination of design and the nature of the speaker itself selects a different audience, more receptive of the Minis charms.

The overall presentation is one of complete transparency. Not simply in the audiophile 'listening into the mix' or 'analysis of the system' kind of transparency that engenders a constant stream of 'not quite' components in the search for audio perfection. No, the Mini is transparent to the music itself. You get a perfect idea of the musicians, the composer and the conductor's intent when listening through the Mini. There's no room for 'phoning in your part' here; compare two versions of the same recording and you'll quickly discover why one is praised and one isn't. As if it didn't need retelling, a quick blast of almost any Steely Dan album will highlight why they are musician's musicians; not in a laid-bare fusty analysis of Steve Gadd's double-stick drumming technique, but in the way they are all pin-sharp precise and gel together in a way that only top notch professionals can muster. That kind of transparency. The proper kind.

There's something inherently right about the Arabesque Mini, in much the same way there was something inherently right about legendary standmounts like the Sonus Faber Elector Amator or the Extrema. All three are noteworthy because of their exceptionally big sound, with more bass than you would expect from what is essentially a two-way design. All three live up to that 'the whole is greater than the sum of the parts' maxim and I dare say the Mini will join the other two in the sort of hushed tone reverential treatment when they are discussed by audiophiles. Good speakers might not be ten a'penny, but they aren't that rare. Potential legends don't come along that often. The Arabesque Mini might just be 2012's new legend... +