



Small Wonder...

The Eben Ayra C1 Loudspeaker

by Chris Thomas

There's no getting away from it, I have been on a great run recently. Since earlier in the year I have been spoiled rotten with the quality of the equipment that has passed through my hands. It has also been an instructive experience as I took active steps to rebuild my home system from the base up after several lengthy conversations with the editor. His notion that conventional system-building wisdom was somewhat skewed had intrigued me for some time but as ever, it was only when we found ourselves in the same room, at the same time and with all the required hardware that I fully understood the musical reality of what he had been getting at. Someone can tell you something a thousand times, but they only have to show you once and you either get it or you don't. Audio, like life, is about learning and I've learned a lot this year.

This brings me to the Eben C1. This is a small, beautifully proportioned and finished loudspeaker, designed literally from the ground up. I often ask myself why any loudspeaker manufacturer would make a stand-mounted speaker without designing the stand as well? They all know that you can kill performance by using the wrong support and any company that leaves the choice of stand to the dealer or customer is gambling with variable consistency and performance. The C1 comes with its own stand, one that is cleverly conceived yet apparently breaks quite a few "rules" along the way. We are talking about resonance control again and these stands incorporate several interesting

ideas. The top and base sections are of MDF while the arched support is formed from plywood and the bracing strut is a hollow aluminium shaft. The base contains four loosely coupled, radiused rod and cup feet, while the speaker is decoupled from the top of the stand by small felt topped discs supported on captive ball bearings.

The stands are very light and you could easily hold them both in one hand. They also allow the speakers to sway back and forth – alarmingly so if you adhere to the high-mass, high-rigidity school of thought. But Eben believe in low-mass, lightweight designs with low stored energy that won't sap dynamics. They point out that no matter how hard you try, the speakers will always move, so controlling critical resonance is actually more important. That way you don't rob energy from distinct bands within the musical spectrum – or even worse, feed it back

in after some delay. So much for the theory, in practice the result is a sense of speed and solidity that seems quite at odds with the speakers' flexible perch – more so than even the heaviest stands provide. As always, reconciling what you see with what you are hearing is never less than fascinating and quite often mind-blowing as yet another audio taboo bites the dust.

The cabinet is small but exquisitely finished with a tapering boat-back and a smoothly flared, rear facing port. The two-piece baffle is made from 20mm aluminium, with each driver

assembled directly onto its rear face, eliminating the conventional spider and its fixings.

The top, back and sides are of MDF. The mechanics and diaphragm of the ribbon tweeter are the same as those found in other Eben designs, only here the shallow recess that loads the driver is precision machined into the baffle face. It is designed as a sealed unit, constrained around its edge and offers remarkable clarity and bandwidth with none of the associated beaming problems often found in ribbons. ►



► The bass/mid unit is fascinating, also completely designed and built in-house. Having spent several months with the C1 I have to say that I believe it to be one of

the world's great drivers. Again this is built straight onto the baffle and is a low-mass design that finds the magnet transformed from a single ring at the rear of the cone to an array of

Neodymium rod magnets separated from the chassis by soft-iron sections and placed in front of and behind the voice coil in a patented, push/pull arrangement. The rear of the driver is left completely open and this means that there is no reflection back into the cone and far less mechanical or thermal compression. The whole driver has been stripped back to the bare essentials, the cage replaced by stand-offs in the effort to further eliminate reflective surfaces.

The cone itself starts life as aluminium alloy but undergoes plasma electrolysis to create a ceramic/aluminium sandwich in which fully two-thirds of the material has been converted to ceramic. This (again) patented approach helps to preserve the integrity of the cone shape, always difficult with all-ceramic cones due to problems inherent in the cooling process. Eben were looking for a true piston driver with minimal reflection and resonance from the surrounding superstructure, and it doesn't take an awful lot of listening to realize that this is exactly what they've achieved – or just how important it is.

Two-way stand-mount designs of this size can often be impressive and the best are extremely articulate and

tight. With no real low frequency extension to trouble them they should be explicit and detailed as well as delivering a sharp sense of focus.

Many will have a fair amount of mid/bass driver compression, giving them a punchy character and their small cabinets will minimize enclosure effects and resonance, leaving them somewhat dry sounding but always fast and fun.

The best will leave you with the impression that they defy the laws of physics with both their low frequency abilities and their sense of scale.

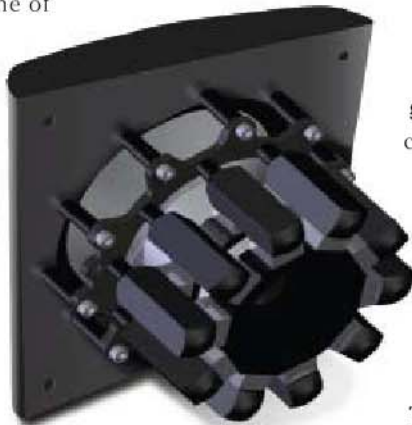
But the C1 is a new breed of small loudspeaker, in that it doesn't require you to make any allowances for its size. A lack of very low bass is the only obvious limitation, because in all other areas this Eben is a totally world-class performer worthy of comparison with other designs at just about any price. At the heart of its powers you will find a balance, integration and musical coherence that is stunning. There is no sense of any discontinuity through the crossover area, or of the tweeter being an individual unit. The weird looking, slab-like crossover components – all hand-built and hardwired with

Nordost cable – keep the music whole and focussed, but with a sense of instrumental continuity, separation and dynamic independence that is mesmerizing. Eben speakers have always excelled in the fine resolution of micro-dynamics and the C1 has taken this to a completely new level, making it the most revealing speaker of pure musicianship I have heard. Phrasing is at the heart of so much that makes a great player. You can teach a novice how to play a six-note sequence, but understanding how that line can be shaped and phrased can take years. For a master musician, fine changes can be channelled through

the instrument to project your feelings and convert them to lyrical expression.

Resolving the subtleties of phrasing is one major area that separates great systems from good systems.

These realisations are certainly not the sole responsibility of the speaker, and you'll also need the right electronics and installation if you want to explore this aspect of music, but few designs are as sensitive to the subtleties of these shifts as this Eben. This is due, in part, to the speaker's uncanny quietness. Low noise floors are usually applied to electronics but the C1 has an inky black quality to its backgrounds that leave the music sounding even more vivid and colourful. There is no other speaker of this size, in my experience, that comes close to being able to show tonal colour with anything like this complexity and texture. Resolution is tremendous too, right across the impressive bandwidth and from



► front to back, where the C1 opens deep, wide soundstages, completely out of the box and rock solid.

The lack of compression is at the heart of so much that they do. Large scale instruments, mixes and orchestral works never present a problem to that driver, and even when you give it a lot of work to do it always seems to have reserves in hand and the uncanny ability to allow complex pieces of music, brimming with dynamic detail and tonal variety, ample headroom and freedom. I can't tell you how many times I have looked at the size of that unit and wondered how it can cope. Although, to some extent it lives in the shadow of the remarkable mid/bass driver, the ribbon tweeter is the unsung hero of the design. As well as phenomenal articulation and a total absence of harshness it has remarkable high frequency extension and never draws attention to itself for a moment. I much prefer this shallow baffle loading to the deeper, horn-type that I have heard on other Ebens. Here it has real freedom to breathe and while it may lack the sheer air and obvious sparkle of Focal's Beryllium tweeter, it has a very natural feel to it and is equally dynamic and textural. Then there is the amazing integration that Eben have achieved in this speaker – and that elevates it to another level completely.

The bass is nothing less than astonishing, both in extension and quality. It is fast and dynamic yet tremendously stable and again, focussed. Its sense of pitch and colour are extraordinary for a speaker of

this size and are better than many speakers I have heard with far greater internal volumes. Even if you are into the wildest slapped bass funk you won't feel let down. In the bass, as throughout the bandwidth, the C1 is endlessly detailed and it can punch hard or be extremely close and intimate, full of the most delicate musical nuance and flavour. But, like all speakers, they are a slave and an open window to the system. This is a truly exceptional design of brilliant potential, but like other great audio components it is the easiest thing in the world to make it sound bad. Stick it on the end of an inappropriate, poorly thought out system and you will certainly wonder what all the fuss it about.

I love listening to music with these Ebens and have used them with several amplifiers without ever feeling short-changed by their limitations. They were masters of time with the rhythmic suppleness of the Vitus SS-010 integrated and exhilarating with the Lyra Connoisseur and the Ayre MXR mono-blocs but they were something else again with the David

Berning amplifiers reviewed elsewhere in this issue and able to translate their brilliance into some of the most intense and beautiful listening sessions I and any who dropped by to listen had experienced.

Just don't expect them to tolerate poor amplification.

These are superb loudspeakers that set a new benchmark for two-way stand mounts.



But their abilities go far beyond that and they should be heard by anyone who loves music and has a system good enough. I have always been slightly uncomfortable with the idea of the single product review. When I read them, there all too often seems to be a subtext that suggests, "This is the new reference product; buy it and all your audio problems will be solved". While I can see the attraction of such reviews and the promise they hold, I have always been acutely aware that we listen to systems and not individual components. Good amplifiers don't always make beautiful music, even when paired with good speakers. But what the Eben C1 does more clearly than any other speaker I've used is let you hear what your system and the musicians are doing. And when the news is good, it's very, very good indeed. ►+

TECHNICAL SPECIFICATIONS

Type:	Stand-mount two-way speaker Rear reflex loaded
Drive Units:	1 x sealed ribbon tweeter 1 x 115mm ceramic mid/bass driver
Nominal Impedance:	6 Ohms.
Sensitivity:	88dB
Dimensions (WxHxD):	200 x 370 x 360mm
Weight:	12.5 kg ea.
Finishes:	Burr walnut or piano black.
Price:	£7995 inc. stands.

UK Distributor:
Metropolis Music
Tel. (44)(0)1435 867 438
Net. www.metropolis-music.co.uk

Manufacturer:
Raidho, Denmark
Net: www.eben.dk/