

Scansonic MB-5

Always fancied the 'Raidho ribbon sound' but were dissuaded by the price? Scansonic wants to help...
 Review: **Nick Tate** Lab: **Keith Howard**

It's a hard life being a £6000 speaker. There's no way out for those that are found lacking – manufacturers cannot blame the lack of budget, or the need to build it down to a price. Many hi-fi enthusiasts would regard this price-point as being impossibly high-end, and even serious *aficionados* will think it a pretty penny. Competition is tough, both from more budget brands doing their cost-no-object flagships, and high-end marques making entry-level designs. In short, six grand speakers risk being run over from both sides of the road...

MINIMAL FOOTPRINT

Scansonic HD is the sister company of respected high-end Scandinavian loudspeaker specialist Raidho, and indeed the MB-5 is made by the very same team [see boxout, p59]. Your £5799 buys you a certain family resemblance – especially the ribbon tweeter and relatively narrow front baffle. This two-and-a-half-way Scansonic floorstander, however, takes the 'small footprint' idea about as far as it can practically go, shrinking down the diameter of its four conventional moving-coil drivers to just 115mm.

It is second-from-top in the company's MB range, the flagship MB-6 having an array of no fewer than six of these drive units inset into its tall and thin front baffle. For both midrange units and woofers, designer Michael Børresen has gone for a carefully profiled, ridged, dustcap-free membrane made from woven carbon, said to have optimal shape and stiffness.

Certainly this material is synonymous with the latter characteristic, and has found its way into a number of novel drive units over the years. In my experience, carbon tends to have satisfying speed allied to a pleasingly neutral – even slightly 'dark' – tonality. In the MB-5, two of these drivers handle bass frequencies up to 200Hz, and the other two (sitting either side of the tweeter D'Appolito-style) work in series to take care of the midrange up to 3.5kHz. This is a little higher than in many floorstanders and keeps the crossover just

a wee bit further away from the region where the ear is most sensitive [but see Lab Report, p61]. The woofer, says Scansonic, has an overhung magnet system, with a long linear stroke.

The tweeter is no less innovative. It's a ribbon sporting what is claimed to be an extremely light diaphragm, sealed around its edges. It's formed from a 20µm Kapton-aluminium sandwich, with a quoted mass of just 0.03g – which is said to be approximately 50 times less than any conventional textile, ceramic, beryllium or diamond dome. This would suggest a very high transient speed, low distortion and coloration, although Raidho's ribbon tweeter fitted to the XT-1 [HFN Apr '17] seems to have a more powerful magnet.

The cabinet is an interesting affair too. As previously pointed out, it's unusually narrow in order to make the speaker less obtrusive in all those European townhouses and city waterfront apartments in which it will surely end up. That's not to say it's in any way insubstantial though, for while it's not quite up in the heavyweight category it's extremely well constructed and could pass for being milled from aluminium.

CARBON BRACING

Actually, it's made from more conventional material, but heavily braced and reinforced by carbon, says Scansonic. The rear is curved, as is the fashion, and sports three small reflex ports while a single pair of binding posts is fitted, so bi-wiring is not an option. The speaker stands unusually tall on its neat aluminium plinth with four adjustable softly spiked feet, and weighs a solid 24kg. Available in a choice of black silk or white silk, the MB-5 is as superbly finished as you would expect.

The MB-5 is a respectably sensitive loudspeaker given its relatively limited internal volume and low diameter drive

RIGHT: Twin 115mm carbon-fibre mid units are arrayed above and below a custom ribbon tweeter while a further pair of 115mm drivers augment the bass output below 200Hz. Outriggers help stabilise the tall, narrow cabinet



FAMILY AFFAIR

One of Denmark's most prestigious loudspeaker brands, Raidho has a fine reputation for its distinctive designs – but one could never call them especially affordable. For that reason, when parent company Dantax Radio A/S took over the company in 2009, it began to consider repackaging the marque's design expertise into something a little less esoteric. The result was the Scansonic HD range, which is still a high-end brand by most people's standards. Raidho design chief Michael Børresen's thinking is no less apparent, with his beloved ribbon tweeter playing a major part – although it has been produced with a greater eye on cost than in the flagship Raidhos. Likewise, while still extremely capable, the bass and midrange drivers are focused towards performance-at-the-price, rather than outright ability. The Raidho team does the final voicing on Scansonic speakers before the design is signed off, so the result is a not unexpectedly familiar sound, albeit one that's within better reach of more buyers.

units, but deep bass output is not its forte. The upside is that – while it won't shift vast amounts of air on account of its waif-like profile – it should work well in any listening room. Its modest bass output is unlikely to set off any room modes, especially when used clear of boundaries, but there's plenty of scope for tuning. I used it slightly toed-in, but the MB-5 isn't overly directional and sounds good across a wide angle.

WELL-ROUNDED WINNER

Some £6000 loudspeakers set out to do amazing things and only partially succeed – if at all – whereas the Scansonic MB-5 goes instead for a more accomplished all-round sound. It doesn't wow you with its incredible speed, power or energy. Rather it's designed to let the music speak for itself – and this is how it works so well.

However, you soon realise that this isn't a first choice for anyone wishing to recreate nightclub sound levels in their listening room. Like every loudspeaker, it's a prisoner of its size and cannot produce a quart from a pint pot, so maximum volume and bass is limited. In many people's domestic surroundings none of this will be an issue, and instead its slimline demeanour allied to a very well rounded, accessible sound will win listeners round.

Indeed, the MB-5 is rather sly in the way it goes about making music: everything is kept neatly ordered, under total control. There's no sense that it ever overreaches itself, nor does it shine in one respect and fail in others. This speaker sounds impressively seamless and you're never aware of the multitude of drive units doing their job. All is calm, easy, effortless and as a result – highly satisfying. Take, for example, The Congos' 'Days Chasing Days'

from *Congo Ashanti* [Congos CD 21522]. This is a reggae track with a pulsating bass, and while I've heard other similarly priced boxes push out more low frequency energy, attention is never drawn to the constrained nature of the MB-5's bottom end. Instead, with its fine midband making up the numbers, so to speak, you find yourself focusing on the large amount of detail coming through, and the tuneful way in which it's all strung together.

MARLEY'S LAZY GROOVE

Another reggae classic, this time 'Waiting In Vain' from Bob Marley's *Exodus* [Island Records 548 898-2] delivered the same result. I enjoyed the finely detailed and

highly percussive rhythm guitar work, and didn't obsess on the relative lack of low end bite. That's not to say the bass isn't tuneful however, for the MB-5 is sufficiently extended to carry the bass guitar playing

convincingly as the bassist moved up and down the frets in that wonderfully fluid way. Maybe not feeling it in the back of my chest, instead I found my attention drawn to the lovely, lazy groove set up by the hi-hat, snare and rhythm guitar playing. There's oodles of low level detail thrown up that comes towards you like gentle waves lapping at your feet.

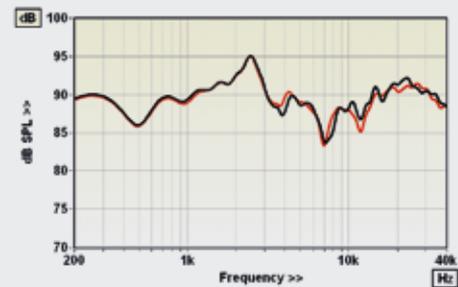
The Congos track did show up a slight boxiness to the bottom end – you're aware that you're listening to a ported loudspeaker whose cabinet isn't as exceptionally well braced as, for example, a similarly tall Raidho. Keep the volume at middle levels or below, and it's not an issue – you instead find yourself rather enamoured by the smooth seamlessness of everything, and the natural musical gait that makes you want to keep listening. ➔

'I was drawn to the lovely, lazy groove set up by hi-hat and guitar'

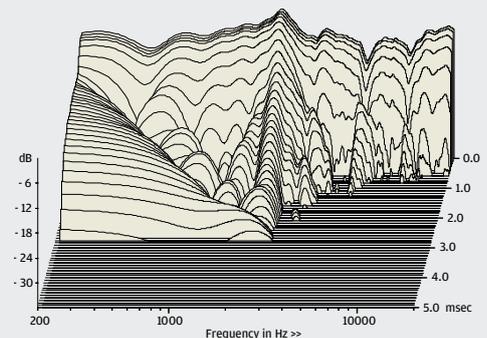
SCANSONIC MB-5

Unusually, the specification for the MB-5 does not include a sensitivity figure. A modern floorstander of these dimensions ought to achieve around 89dB for a pink noise input of 2.83V, and our measurements show that the MB-5 actually exceeds that, recording 89.8dB. Given that our 'music shaped' signal elicited 90.4dB, the MB-5 can claim a genuine 90dB. Scansonic also doesn't specify a nominal impedance but says rather that the impedance is always greater than 4ohm. Our impedance measurement didn't support this, the impedance modulus falling to a minimum of 3.3ohm at 130Hz, entirely consistent with a 4ohm nominal figure. Impedance phase angles are moderately high, resulting in a minimum EPDR (equivalent peak dissipation resistance) of 1.6ohm at a low 20Hz. This figure is not atypical but the MB-5 also has dips to 1.7ohm at 118Hz and 1.8ohm at 55Hz, suggesting that actually it presents a tougher amplifier load than average.

The forward frequency response [Graph 1], measured on the tweeter axis with grille removed, is distinctly uneven around a flat trend overall, with a notable peak at 2.5kHz and narrow notch at 7kHz. As a result, frequency response errors are high at ± 5.7 dB and ± 5.9 dB respectively. Pair matching over the same 200Hz-20kHz is also disappointing at ± 2.0 dB but is actually very tight up to 3kHz (± 0.3 dB). Diffraction-corrected near-field measurements showed the bass extension to be a high 62Hz (-6 dB re. 200Hz), so the MB-5 will benefit from judicious placement relative to room boundaries. The cumulative spectral decay waterfall [Graph 2] is clean apart from a resonance associated with the 2.5kHz response peak. KH



ABOVE: The MB-5's forward response is rather uneven with an upper mid peak and depressed presence



ABOVE: Cabinet and driver resonances are well damped apart from the peak at 2.5kHz [see response]

LEFT: The narrow, tapered cabinet profile dictates the use of multiple reflex ports while the single (rather than split) crossover means one pair of 4mm cable terminals and no bi-amping/wiring

loudspeakers cope with sub-par recordings. The MB-5 did itself proud – the track's coarse treble was rendered far less unpleasant by its excellent ribbon tweeter.

CREAMILY SMOOTH

More impressive was the way all this melted away into the midband in a quiet, no-nonsense manner, the tweeter providing a lovely 'halo effect'. The track's rich and sonorous male vocals were highly believable. There was no sense of lumpiness, nor did the singer sound as if he was working his way through a bad cold. Despite being the antithesis of an audiophile recording, things were creamily smooth.

I was struck, too, by this speaker's fine sense of scale – the De La Soul track had an enjoyably 'out of the box' sound with a large soundstage and accurate imaging, something that also shone through with the polished progressive rock of Camel's 'A Nod And A Wink' from the band's eponymous album [Camel Productions CP-013CD]. Substantially better sonically, this track was delivered in an immersive way, with fine depth perspective and truly three-dimensional sound.

Those carbon midrange drivers finally had the chance to show how open they can be, with a pleasingly revealing nature. Overall, I was struck by just how adept this loudspeaker is at simply getting out of the way. ☺

HI-FI NEWS VERDICT

Scansonic HD's MB-5 is a gifted compact floorstander with a neutral yet immersive sound and a feel for the music's natural rhythm. It imposes little character of its own, aside from its obvious physical size limitations. There are price rivals with deeper and more gutsy bass, able to go louder and with greater impact, yet few can match this speaker's mix of engaging sound quality, room-friendliness and superlative finish.

Sound Quality: 83%



De La Soul's 'A Roller Skating Jam Named "Saturdays"' from the CD single 'Tommy Boy' [Tommy Boy Records TBCD 990] is a classic hip-hop track based on an old looped soul music sample. It's hardly the highest of fi, but it's always interesting to see how high-end

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms – Mean/IEC/Music)	89.5dB/89.8dB/90.4dB
Impedance modulus min/max (20Hz–20kHz)	3.3ohm @ 130Hz 20.6ohm @ 83Hz
Impedance phase min/max (20Hz–20kHz)	-47° @ 98Hz 48° @ 70Hz
Pair matching/Resp. Error (200Hz–20kHz)	± 2.0 dB / ± 5.7 dB/ ± 5.9 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	62Hz / >40kHz/>40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.7% / 0.4% / 0.2%
Dimensions (HWD)	1185x178x319mm