

HIFI CRITIC

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REVIEWED THIS ISSUE: THORENS TD309, FOCAL UTOPIA SCALA V2, BULLY SOUND BSC60s/BSC100m, MARTIN-LOGAN MOTION 15, VOXATIV Pi, VAC PHI 200, KEF LS50, ASTELL&KERN AK100, Q ACOUSTICS CONCEPT 20, HEED OBELISK DT+DA, PARASOUND Zdac, TRACK AUDIO SPEAKER STANDS, CEC WELLFLOAT PLATFORM, KONDO KSL-LPzD, HIGH END NOVUM PMR MK2, LEADINGEDGE PLATFORM, PSB M4U-1. MAINS CABLES: ISOTEK EVO 3 PREMIER, DELTEC POWER INSLINK, CHORD SARUM, NAIM POWERLINE, MCRU ULTIMATE RHODIUM, TRANSPARENT CABLE: XLMM2



HIGH END 2013

British and German journalists report from the specialist hi-fi event of the year - the High End Society show in Munich

LISTENING TO DSD

SACD's DSD hi-res format is coming back, this time in a disc-less form that can be played straight from your PC. Andrew Harrison reports.

THE NEW SCALA V2

Focal has just upgraded its most popular Utopia III model. Martin Colloms gets to try it out

A SLICE OF PI

Paul Messenger assesses the Voxativ Pi, the company's prettiest, smallest and least costly speaker to date

VALVES OR TUBES?

Rafael Todes and Martin Colloms try out the Valve Amplification Company's PHI 200, a high end US valve amplifier, in stereo and monoblock form

BABY THOROUGHbred

Paul Messenger gets his hands on KEF's LS50. Inspired by the LS3/5a, this pretty little 'Son of Blade' is very sharply priced

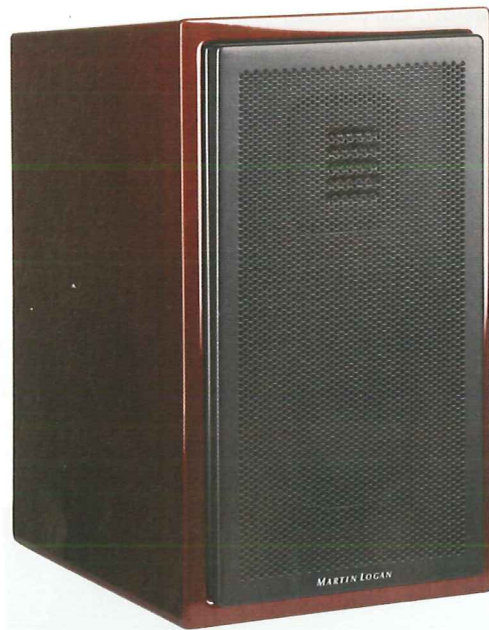
KETTLING TODAY

Martin Colloms assesses a batch of mains cables, from Isotek, Deltec, The Chord Company, Naim Audio, Mains Cables R Us and Transparent

MUSIC & MUCH MORE

Ribbon Development

THIS LUXURY US MINIATURE LOUDSPEAKER HAS A FOLDED 'RIBBON' TWEETER



Best known for hybrid designs which characteristically combine convex-front electrostatic panels for midrange and treble with moving coil bass enclosures, for some years now Martin Logan has also been making a series of speakers, such as this £795/pair *Motion 15*, primarily intended for AV home theatre use. It uses an alternative planar technology, namely the *Motion* tweeter, which is Martin Logan's modern, compact version of the Heil pleated-ribbon driver.

In this application the tweeter is set vertically, and has a 2.5x3.5cm radiating surface. However, if unfolded and flattened out, the film measures some 4.4x13.3 cm! Bass and midrange duties are handled by a 5in driver, built on a sturdy cast alloy chassis and using a piston-like 110mm aluminium alloy cone.

The crossover, set at 2.7kHz, has generously rated components, and uses a polypropylene capacitor for the series component feeding high frequencies. The remaining capacitors are electrolytic, while the whole system is protected from overload by the inclusion of a series 'protector' – a polymer component which heats up and goes high resistance if the system is overloaded. After the event this 'fuse' resets almost to its rest value. Consequently ML suggests a 200W maximum power handling, though I do feel that this is a little optimistic.

Our examples arrived in deep gloss cherry veneer finish (gloss black or white are options to order) built on an MDF carcass, with satin black front panel trim. The finish on the latter is so good it looks like machined metal, but is actually painted MDF. The single terminal pair will take 4mm plugs, spades and wire connections, and the ML designed binding posts are nicely accessible, fitted with sensible moulded spinners of sculpted wing nut design. Martin Logan uses China as a manufacturing source, and has now developed considerable experience of doing so.

Sound Quality

After sitting in storage at the distributor for a month or two, these speakers needed a little loosening before our tests could begin, but they quickly ran in after a few days. Now forget what might be expected from something this small. It's not that it has unexpected bass power, which it does not, nor exceptional dynamics, but it does have a surprising and satisfying sense of image scale and depth. It throws a massive and focused soundstage, imbued with airy, delicate, and informative treble. However, the grille should be avoided, as it adds coloration and roughens the sweet and detailed treble.

The *Motion 15* is surprisingly analytical, but in a musical way, quite devoid of shriek, shout or nasality: indeed, its top end sounds rather like the electrostatic panel from one of this company's larger models. Vocal sibilance was well controlled, strings were natural, and the upper treble sounds naturally shimmering and detailed. The midrange is open and articulate, and tidy in its upper reaches, and although the lower mid suffers a touch of boxy coloration, this is nevertheless required to complete the tonal balance. While low bass is absent from this design, the upper bass is sufficiently articulate to carry the bass tune, and does so with an upbeat tempo, providing a pleasing sense of pace.

The *Motion 15* is a precocious, entry level audiophile loudspeaker, which somehow manages to sound like a rather more expensive and articulate reproducer than might have been expected, which is most welcome.

Lab Report

Measured sensitivity was high for the genre at 89dB/W, albeit a full 3dB lower than the 92dB claimed

MARTIN COLLOMS

(but then for this size and bandwidth it would have had to have transcended the laws of physics). The axial response met good $\pm 3\text{dB}$ limits 80Hz - 21kHz, while the acoustic design is clearly accomplished, showing excellent driver output integration, and by 15° above and below the main axis there is barely any change, so good is the phase control. The primary frequency response character is also well maintained laterally out to a wide 60°, thanks to the small size, but also the fine crossover design. That tweeter keeps going nicely to 10kHz even at 60° lateral. No wonder this loudspeaker sounded so open and clear in the listening room.

However, the sensitivity comes at a price. The nominal measured impedance is 4ohms, which is rather lower than the 5ohms claimed, and dips down to 3.5ohms in the lower mid and just 2.7ohms in the lower treble. Conversely the phase angles are quite low, which will make it a little easier to drive. The enclosure's reflex tuned resonance was at a quite high 70Hz, so very little bass can be expected below 50Hz. The pair match was quite good, with some $\pm 1.5\text{ dB}$ variations, but these are considered insufficient to disturb the stereo focus or the timbre unduly.

The metal grille rings audibly at mid frequencies when struck, while the perforations colour the treble and by measurement introduce $\pm 2\text{dB}$ variations at high frequencies. Some extra ringing can also be seen on the time response when the grille had been added.

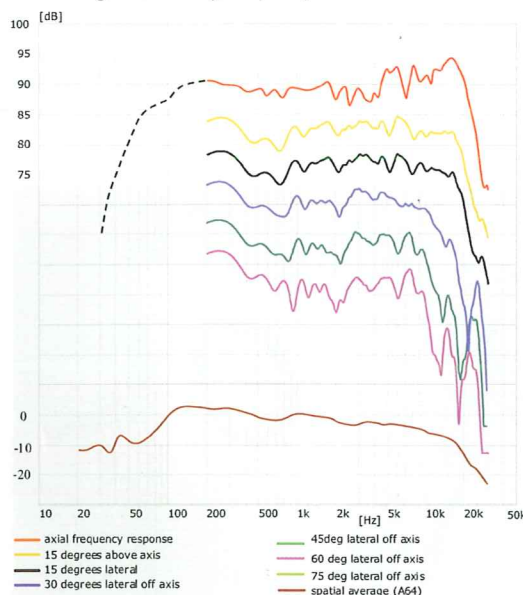
Measured using spatial in-room averaging, the bass is good to 70Hz, and is characteristically dry, but the speaker still managed to play bass tunes thanks to harmonic infill. The overall in-room frequency characteristic is impressively uniform, just gently down-tilted, lending a touch of scale and perspective.

The waterfall display for energy decay with time suggests a near linear phase behaviour for the early response, and also shows good clearing for the prime response at the back of the graph, all of which tends to confirm the coherent clarity heard on audition. However, some minor lower level decay products are also visible, probably deriving from the alloy midrange driver.

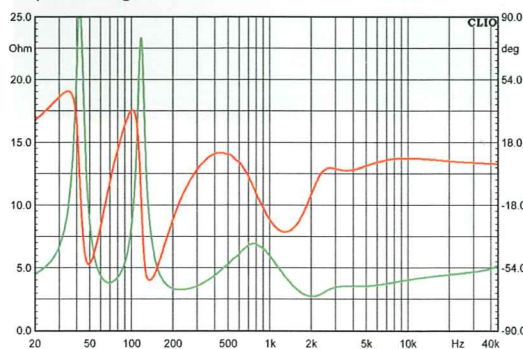
Conclusions

This is a speaker to choose with your musical heart and not with your head. Objectively it is a bit pricey, the bass is somewhat limited, and it is hard to drive. Conversely the mid-treble integration and smoothness is first rate and it drives rooms well. The finish and appearance are excellent. Buy this one with your heart and sit back to enjoy its exuberant musical talents.

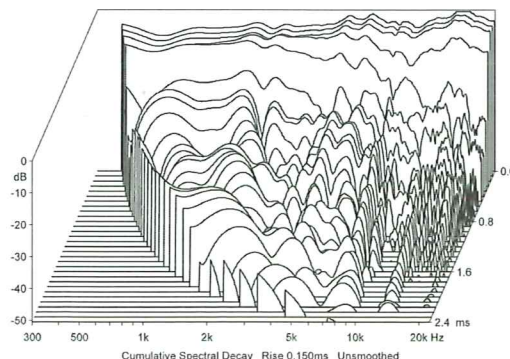
Martin Logan M15 Frequency Responses



Martin Logan M15 Frequency Response of Load Impedance (green) and Phase



Martin Logan M15 Waterfall Display for Energy Decay Over Time and Frequency



HIFICRITIC Loudspeaker Laboratory Measured Test Results

Make	Martin Logan
Country	USA
Model	Motion 15
Type	Moving-coil bass/mid, ribbon HF, stand-mount (24in stands)
Price per pair	£795
Finishes	piano gloss: cherry, black or white
Size (HxWxD)	29x 17.3x 24.2 cm
Weight	5.4kg
Type	2-way: 120mm bass mid, 25x35mm HF, reflex bass loading
Sensitivity for 2.83V	89dB/W measured
Amplifier loading	4 ohms typical, 2.7ohm min: 'below average loading'
Frequency response, axial	80Hz to 21kHz $\pm 3\text{dB}$ (listener axis)
Frequency response off-axis	Good plus: see graphs and in-room response
Bass extension	70Hz for -6dB, (55Hz in-room)
Max Loudness, in room	102dBA for a stereo pair
Power rating (max, min)	125W, 20W
Placement	24in/600mm rigid stands, mass loaded, floor spike coupled



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