

GamuT M'inenT M5

Aiming to widen its loudspeaker line-up, Danish loudspeaker company GamuT introduces the mid-level M'inenT range
 Review: Adam Smith Lab: Keith Howard

It is often said within the car industry that the 'safe' options for purchasers are provided by the likes of Toyota, General Motors and Ford, with some smaller manufacturers failing to receive the credit they deserve due to a lack of public awareness. In some ways this can be said to be true of the loudspeaker industry as well, with names including KEF, B&W, Tannoy and Monitor Audio being the comfortable choices for many listeners. Not that there is anything wrong with this, of course: the companies in question make some superb loudspeakers between them, but it is worthwhile remembering that if none of their models quite meet your requirements, there are many other, slightly lesser known, names that will probably fit the bill.

GamuT is one of the companies that is slowly gaining a wider circle of awareness thanks to some very impressive demonstrations at hi-fi shows across the globe. It also happens to hail from Denmark, a country which seems to have more than its fair share of talented loudspeaker designers thanks, in no small part, to the well respected Audio Engineering research department at the country's Technical University.

New from the company is the M'inenT range. The line-up comprises one standmount loudspeaker, the M3, and two floorstanders, the M5 and M7. The M5s under review here are most certainly not a small design shadowed by their larger brethren – they have a tall and commanding presence yet somehow seem less bulky than their paper dimensions would suggest. (I suspect that it is largely the 'swept-back' cabinet design that makes them appear sleeker.)

The cabinet itself is also exceptionally well finished in an exquisite, flawless real wood veneer. A good range of finishes is available but only three of them – Satin Black, Walnut and Figured Maple – are available at the suggested UK retail price of £8460. Should your tastes veer to the more exotic, you will need to dig deeper into your wallet as optional Makasa Ebony or Lava Red Burl veneers add around £2000 to this price; and taking any of these five options to a high gloss finish starts at around £3300.

The slender cabinets of the M5 contain three drive units and they are configured as a two-and-a-half way design, with crossover points at 500Hz and 2.25kHz. Handling the bass end of the spectrum is a 7in driver with rubber surround and a GamuT hand-treated, wood fibre cone. This hands over to another 7in bass/midrange driver, again based around a hand-treated cone, but this time with the addition of 'slices' into the material which are then filled with damping glue. This is claimed to control cone breakup throughout the critical midband region, reducing distortion.

SPIKE IN THE SYSTEM

The treble is then left to a Scan-Speak Revelator tweeter – a double ring radiator design rather than a true dome. The alarming-looking front spike is not just a handy device to stop visiting children from poking the unit with their fingers, but is an integral part of the tweeter's design, not only shaped to aid dispersion but clamping the centre of the dome. In a conventional design, the top of a tweeter dome is at the furthest point away from the voice-coil and has potential to move in the opposite direction to that of the coil, as a resonant wave is set up in the dome at certain frequencies. The result is cancellation and dips in the frequency response. Naturally, careful dome design and judicious material choice minimises this behaviour, but clamping the centre of the dome leaves a smaller area free to move, potentially reducing cancellation effects, smoothing the tweeter's output and permitting higher frequencies to be reproduced [see Lab Report, p39].

The drive units are connected by a crossover circuit that GamuT calls a 'Non Resonant Linked Impulse' solution. The company says that this operates in the time domain to control interactions between drivers, cabinet and the circuitry itself. The crossover has a high component count and is calculated to offer an acoustic behaviour of

RIGHT: Drivers include a 7in wood fibre coned bass unit crossing to a 'sliced cone' 7in mid at 550Hz. Tweeter uses an 'impulse and resonance optimized' double ring radiator with GamuT's own stainless steel wave guide. Crossover is at 2.35kHz





DANISH DESIGN

The Danes have an impressive track record when it comes to companies specialising in loudspeaker design and research, fielding names like Dali, Dynaudio and Bang & Olufsen, in addition to drive unit manufacturers such as VIFA, Peerless and Scan-Speak. GamuT has done well to add its name to this hallowed list recently, despite starting out as an electronics manufacturer and only branching into loudspeaker design in 2005. The company (taking its name from the Latin word meaning ‘the entire range of musical notes’) still offers a complete range of electronics including a CD player and preamp, two integrateds and two power amps, but can now supply its customers with a complete system, thanks to their 11-strong range of loudspeakers. Designer Lars Goeller brings with him a wealth of knowledge in this field, having started out in the Technical University of Denmark’s audio engineering programme before moving on to work at Dali. Amusingly, GamuT proudly claims that the solutions it has found in its search for musical prowess are all in the ‘very expensive’ category!

‘between first and second order’. The loudspeakers are wired internally with ‘WormHole Signature’ cabling, another GamuT development comprising individual insulated conductors surrounded by a special woven insulation material, all inside a second cover that has copper threads within it. The company claims that this ‘permits the effective termination of unwanted stored energy, thus optimising impulse behaviour’. To round the package off, a very smart grille is included that appears to locate on just two holes within the cabinet; but it is further stabilised using magnets that sit on the drive unit fixings.

Finally, I should award brownie points to the manual supplied with the M’inenT M5s. As well as covering the usual connection, running-in and general care aspects, it includes a very detailed guide to optimal positioning of the speakers within the listening environment, offering simple calculations based on room size and layout.

NO FALSE SHOWMANSHIP

With the M5s positioned in accordance with the user manual, I was pleased to hear that they most certainly exhibit that lovely fluidity and sense of easy clarity that really only comes with loudspeakers bearing a somewhat higher than average price tag. It is easy to wonder if such a fiscal outlay will really bring any great deal of improvement over an already competent pair of more affordable designs but the M’inenTs dispel any concerns of this nature very quickly.


‘The dip in output in a strange way works to the M5s’ advantage’

The GamuTs offer an easy sense of integration from low bass to high treble and the outputs of the drive units coalesce to offer a beautifully performance ‘in the round’. The dip in output across the upper midband noted in the Lab Report is something that one gradually becomes aware of, but in a strange way this works to the M5s’ advantage as well. While I am used to Diana Krall’s vocals on her *When I look In Your Eyes* CD [GRP 050 304-2] being pushed out into the room by my own loudspeakers, the performance was pulled back a little through the M5s – but

the overall result was to seat Miss Krall at her rightful position, beside her piano.

Ultimately the GamuTs do not seek to impress by any sense of false showmanship but are more than capable

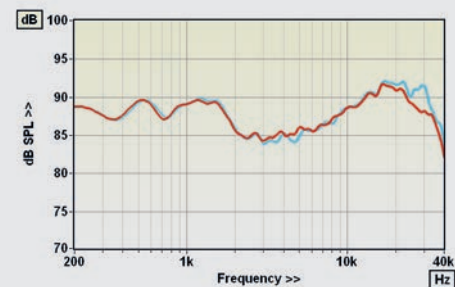
of generating a very open and capacious soundstage. Interestingly, however, I had to make a small modification to my reference listening system to hear this effect at its best. I usually use a Naim Flatcap XS power supply on my CD5XS CD player, finding the extra *souçon* of treble crispness and bass weight it brings about to be beneficial. However, through the GamuTs, this combined with their slight midrange trough to give a result that was just a little too stark, and I found the M5s to sound that bit better balanced with it removed from the system.

Even without the Flatcap XS, the M’inenTs’ bass performance was most impressive. Their low end is deep, tuneful and big-hearted, but without ever giving any sense of boom or wallow. The rear-mounted ports have been well tuned and, combined with a very well constructed 

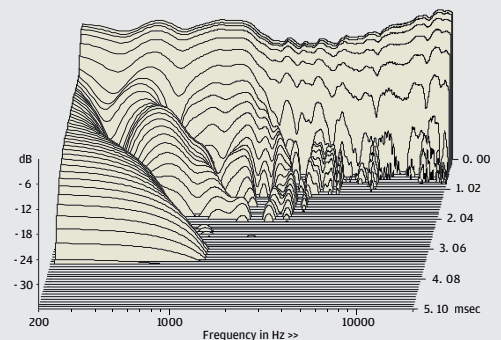
GAMUT M'INENT M5

GamuT claims 90.5dB sensitivity for the M'inent M5 but our measured pink noise figure of 88.2dB suggests that this is distinctly optimistic and that an 88dB specification would be more appropriate. Despite this and the use of reflex loading, still the M5 presents a sufficiently low impedance to be a challenge to the amplifier charged with driving it. GamuT specifies a nominal impedance of 4ohm and a minimum of 3.0ohm at 220Hz but our testing recorded a minimum of 2.5ohm at 167Hz, which makes even the 4ohm nominal rating a little high. Impedance phase is fairly well controlled, reaching a maximum of -49 degrees at 63Hz, but even so the EPDR (equivalent peak dissipation resistance) falls to a challenging minimum of 1.3ohm at 81Hz.

Frequency response errors of ± 3.7 dB and ± 4.1 dB (200Hz-20kHz) for the review pair, are moderate but the on-axis frequency response (measured at tweeter height) has an anything but flat trend [see Graph 1, below], its most notable feature being a wide trough in output between about 1.7kHz and 10kHz, the effect of which will be to bleed some presence and life from the M5's sound. Pair matching error over the same frequency range was a good ± 1.0 dB. Bass extension was a little disappointing at 43Hz (-6dB re. 200Hz), this near-field measurement diffraction corrected using the KHF tool from LspCAD. Ultrasonic extension reaches out to about 40kHz (-6dB re. 10kHz). The cumulative spectral decay waterfall [Graph 2] shows fast initial decay across the spectrum and only low-level treble resonances – but take into account that the latter are lowered somewhat by the M5's presence band trough. KH



ABOVE: The M5's forward response shows a marked loss in upper mid/presence band output



ABOVE: The internal bracing and 'pressure control segments' keep cabinet resonances well-damped

LEFT: The dual ports feature 3mm-thick high pressure polymer tubes with flared aluminium openings. The bi-wire input terminals are GamuT's own 'gold-plated bronze and aluminium' binding posts

acoustic instruments fronting the track perfectly and both provided the perfect base layer to Kurt Cobain's cracked, emotional vocals.

The phrase 'just like being there' is one that has been grossly over-used in the past when it comes to hi-fi equipment but I have to admit that it kept popping unbidden into my head with the rest of this album!

SO REAL

This is far from being my first encounter with the Scan-Speak Revelator tweeter and every time such a meeting occurs, I rarely find myself anything other than captivated by its performance.

Its implementation on the M'inentTs only served to reinforce my feeling that it is one of the finest treble units available today. The speakers' top end was a joy to listen to, imbued with a crispness and almost 'walk-through' clarity that painted a sometimes astonishingly vivid sonic picture of the performers.

The gently strummed electric guitar that begins Jeff Buckley's 'So Real' from his *Grace* LP [Simply Vinyl SVLP 0077] had a menacing intent to it and Buckley's vocals themselves sounded stunningly heartfelt. And when the track moved up a gear, the M5s exhibited no sense of strain or compression. One particularly vicious cymbal strike rang out across my listening room with great fury and yet startling lucidity. ☺

HI-FI NEWS VERDICT

These M'inent M5 loudspeakers are a very welcome addition to the UK loudspeaker market, bringing a healthy slice of GamuT's top-flight El Superiores' performance in a more realistic package, both in terms of price and physical size. They require some care in equipment matching to give of their best but, once configured optimally, offer a refined and musically adept alternative to the mainstream.

Sound Quality: 82%



cabinet that remained vibrationally quiet even under some serious sonic onslaught, give a solid, clean and detailed foundation to all music.

Spinning 'The Man Who Sold The World' from Nirvana's *Unplugged* LP [Geffen GEF 24727] left me listening to a bass drum that was as vivid as I have ever heard it; each strike was firm and taut but without any sense of overhang. It underpinned the

HI-FI NEWS SPECIFICATIONS

Sensitivity (SPL/1m/2.83Vrms - Mean/IEC/Music)	89.2dB/88.2dB/87.3dB
Impedance modulus min/max (20Hz-20kHz)	2.5ohm @ 167Hz 9.8ohm @ 51Hz
Impedance phase min/max (20Hz-20kHz)	-49° @ 63Hz 35° @ 1.6kHz
Pair matching (200Hz-20kHz)	± 1.0 dB
LF/HF extension (-6dB ref 200Hz/10kHz)	43Hz / 39.3kHz >40kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.4% / 0.3% / 0.4%
Dimensions (HWD)	1210x226x575mm