



Platinum Asset

David Price auditions one of Monitor Audio's most impressive compact loudspeakers, the PL100 standmounter...

Just as you'll never make a great car with an also-ran engine, so loudspeakers cannot properly perform with so-so drive units.

It often puzzles me why speaker makers take such trouble with their cabinetry - fancy lamination techniques, radically shaped baffles, extensive bracing *et al.* - only to shove bog-standard drivers inside and hope for the best. The result is, of course, that all that money spent on housing them gets the best out of really rather poor transducers with only slightly better air shifting abilities than a paper bag...

Alright, I'm exaggerating for effect, but my point is simply that a truly great loudspeaker requires truly great drive units. The 'coal face' is where the electrical energy gets turned into mechanical sound waves, and there's no skirting around this. Skimp on the quality here and no matter how fancy your cabs are, you're polishing the proverbial bovine excrement...

The next question is of course, what is the ultimate transducer? Well, if only life were so simple. The answer is that such a thing has not been invented, and that if it were, getting it to work with less perfect

drive units would doubtless drag it down. Still, we can make generalisations, and say that the ideal is low mass - given that drive units move air, the lighter the bit that moves the air, the less power is required to do it, and the higher the speed achievable becomes - an elegantly simple principle that Colin Chapman used to great effect in his Lotus road and race cars.

So, instead of large and heavy cones being vibrated in and out by massive magnets, when you get into the realm of the high end, you find altogether more elegant solutions which espouse this low mass

philosophy. The problem, of course, is that it all costs money, so it's not until the multi-thousand pound price point that you find the weird and wonderful world of electrostatic panels and ribbons rearing their lovely heads. Even then, very often they're hybrids, and getting them to work in a linear way with a far more conventional bass driver (which is where ye olde moving coil cones are still king) is a pain in the bass port, so to speak.

Monitor Audio are to be congratulated for their decision to use ribbon tweeters in their new Platinum series. The 'entry level' model tested here, the PL100, is a 'mere' £2,300 yet runs a very nice ribbon tweeter, as do the accompanying £5,000 PL300 floorstander and £2,300 PL350C centre channel speaker. To wit, we have a brand new 'Ceramic Coated Aluminium/Magnesium' ribbon tweeter riding shotgun with a single 6.5" 'Rigid Diaphragm Technology' bass-mid driver. Thumbs firmly aloft then, to Monitor Audio technical director Dean Hartley's decision to use a ribbon, which although pricier gives potentially superior results to a dome.

He sees the mass of conventional dome tweeters as a problem, restricting both speed and overall bandwidth, adding that "the ribbon tweeter does not have a voice coil or suspension mass and in this case the moving mass is the same as the ribbon mass which is 18mg". This works down to 2.5kHz, where it crosses over to the mid/bass driver – the crossover boasts specially made metallised polypropylene film capacitors, graded to 1% tolerance. Air cored inductors are used to provide low distortion, and internal wiring is pure silver.

The mid/bass driver is "a new in-house development which we call RDT, made from bonding very thin skins (40um thick) of C-CAM alloy to a Nomex honeycomb core. This forms a laminated sandwich type construction and is incredibly strong. The concave design has an uninterrupted surface to provide smooth response. RDT cones are directly driven by the voice coil and have no dust cap or joints to interfere with the driver response".

Whereas the company in recent years has done very well built-to-a-price products, the PL100 (and its PL300 bigger brother) offer just plain beautiful construction (think Volkswagen, then Bentley). The superbly sculpted, heavily braced cabinets are finished in exotic Santos Rosewood and Ebony natural wood

veneers which are coated in eleven layers of lacquer, while the front baffles delight with their soft-to-the-touch Strathspey leather upholstery, for example.

The cabinet is also very highly evolved, with multiple laminations of wood veneers, shaped to form a rigid plywood shell, irregular internal sides to counter internal standing waves and rigid 'Pin-hole' type bracing to provide further rigidity. Tie-bolts are screwed into the brace from the back and front of the cabinet, tightened to specific torque in order to further tune out any resonance, and Bitumen internal sound deadening material is applied to all internal walls. The front baffle is a thermo-set composite resin with organic fillers. "It possesses a high degree of structural rigidity and damping properties, which is acoustically excellent", says Hartley.

SOUND QUALITY

The PL100 is a distinctive sounding loudspeaker, inasmuch as it doesn't have the 'character' of more conventionally engineered boxes at this price point. From bar one, phrase one, there's no mistaking that ribbon tweeter – if for no other reason than it's not a dome! Put simply, it's what defines the PL100, doing precisely

"properly set up and aspirated by valves and vinyl, these speakers are pure gold..."

what ribbons should do, which is to proffer an unfettered, matter-of-fact window on what's happening in the upper midband and treble. By comparison, any dome tweeter – with the exception of certain ultra-light Beryllium dome perhaps – sounds just a tad fuzzy and sat-upon.

The feeling of space the PL100 confers is exceptional, but I am sorry to say that most people simply will never hear it. Its wide bandwidth will never be accessed to those running Compact Disc systems. Spinning up my much loved Marantz CD63KI DP, with all its redoubtable strengths, simply didn't push the MAs to give anywhere near their best – despite my playing the immaculately remastered 'Who's Next' by The Who. Shifting to the original seventies LP pressing of the same was like drawing the curtains wide and opening the window. The recording flooded in to the room and the PL100s communicated the majesty of the classic 'Wont Get Fooled Again'.

Moving to the Fun Lovin' Criminals' 'Love Unlimited', again on vinyl LP, and the opaqueness that

I'd discerned on the CD version of '100% Colombian' melted to reveal a wider, more sumptuous and altogether more atmospheric recorded acoustic. By now, after some twenty minutes, these metal drivered speakers had begun to warm up (I know this feeling all too well, living with NS1000Ms) and they really began to groove. Here we had a very clean, largely neutral and highly engaging rendition of the song, the PL100s doing just what they were designed to do, which is to dissolve and disappear, taking you right into the recording with passion and precision.

It would be wrong to say that they're utterly neutral. No loudspeaker is, and so it's all down to which kind of colouration you can live with best. Compared to the Quad ESL-989s which I briefly powered up, there's a ever so gentle metallic 'edge' to the PL100s' sound – but that's in no way unpleasant. Whereas the Quads slow and sully transients, the MAs reproduce them in all their sparkling, ringing glory – without adding much else to the proceedings. The result is that hi-hat cymbals (via vinyl) for example, sound remarkably natural – there's a shimmer, a sheen, a glint that cloth

domes and Quad electrostatic panels alike simply damp down, like throwing a handkerchief over your tweeters. It's 'well lit', but don't think for a second that these new MAs sound hard or zingy, because they don't. Indeed, the sense of space that those tweeters confer is enrapturing, and a joy to behold.

Moving to Age of Love's 'Age of Love', and the speed of the ribbons was showcased to great effect – once again this type of transducer, providing its done properly, simply sounds faster and picks up nuances of timing information that conventional





domes simply can't keep up with. Hi hats sounded beautifully textured and timed with majestic precision – making the song bound along when it can, on lesser loudspeakers, merely plod.

Classic rock, in the shape of Dire Straits' 'Sultans of Swing' was a joy. Here we had a clean late seventies analogue recording – arguably the golden age of studio sound quality – without going within a bargepole's length of digital. Bass guitar was warm and tuneful, the PL100s bouncing up and down the fretboard as if their very lives depended on it. Mark Knopfler's lead guitar was beautifully rendered, the MAs showcasing their transparency, their ability to convey the innate tonality of the instrument(s) they're asked to play. Vocals were smooth, delicately etched and superbly projected into the room – the MAs imaging with joyful abandon, sounding unfettered and out of the box. Overall, it was a consummately musical performance.

In absolute terms, you can hear the mid/bass unit running ever so slightly behind the tweeters. It's only a subtle sensation, which results in snare drums having dizzying attack, while bass drums seem fractionally less instantaneous. Of course, this comes with the territory – all loudspeakers with this drive unit combination exhibit it – as there's no way that cones can move in and out as fast as gossamer-thin ribbons. There's also the fact that, despite the cabinets' super rigidity, their bass ports introduce slight time-smear too, as any infinite baffle enthusiast will tell you. In truth, the only way to properly get around this is a massive Apogee-style panel of ribbons at ten times the price, so I'm not criticising the

PL100s, merely observing that they're a fine working compromise rather than the (unaffordable) ideal. Don't get me wrong, listening to these new Monitor Audios is a far more integrated, of-a-piece experience than laying your ears on Martin Logans (another loudspeaker I love – but an electrostatic tweeter/mid allied to a moving coil woofer gives a true 'buy one get one free' loudspeaker listening experience)!

The other thing that strikes those used to loudspeakers without holes in their cabinets is a slight bass boxiness. Again, compared to all small speakers with the possible exception of the likes of Linn's Kan or the BBC LS3/5a, they're commendably taut low down, but move to speakers without bass ports and the PL100s sound, well, like ported loudspeakers. Monitor Audio presumably elected to design them thus to give decent sensitivity and make them system friendly. This is fair enough, as it means the PL100s can be used with moderately powered valve amplifiers – which with they work brilliantly.

CONCLUSION

The problem with Monitor Audio's new PL100 is that its overall ability is so high that any flaw in the gem, so to speak, becomes immediately visible. What it does right, it does brilliantly, and what it doesn't, it still

does very well. By contrast, many of the MA's price rivals are merely good all rounders. Their use of a fine ribbon tweeter is a brave one – being so much better than conventional moving coil drivers it throws the spotlight on the PL100s mid/bass driver. As it turns out, this is also very capable, and the result is a loudspeaker that offers superb insight into recordings.

In practice, the main problem with the PL100 is that it's so good that it can very easily sound bad – exposing poor sources and amplification. Indeed, on other systems in other places, I've heard this speaker sound very poor – because it was merely reporting that the 'bread and butter' CD source wasn't up to the job. As such, I'd suggest you treat them as the final, affordable link in a serious high end system, preferably running top notch vinyl, SACD or suchlike – rather than just a generic upgrade to a lesser pair of speakers in any old system. Properly set up and inspired by valves and vinyl, the Monitor Audio Platins are pure gold.

REFERENCE SYSTEM

Michell GyroDec turntable
SME Series V tonearm
Kotatsu Red Signature cartridge
Note Products PhoNote phono stage
Marantz CD63 KI DP CD player
MF Audio Silver Passive Preamplifier
World Audio K5881 power amplifier (modified)
Sugden IA4 integrated amplifier
Yamaha NS1000M loudspeakers
Quad 989 loudspeakers

MEASURED PERFORMANCE

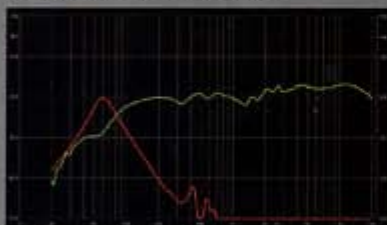
The Monitor Audio Platinum PL100s exhibit a rising output trend with frequency, treble lifting by around 3dB compared to the reference level across the bass and midrange region. Output from the ribbon tweeter is very smooth and even however, so whilst the PL100s are likely to have quite a bright balance, the overall result should be detailed but with little harshness. Interface between the two drivers is very good, with no major peaks or troughs and the PL100s look to be very well designed in this respect.

At the bottom end, bass rolloff starts from around 90Hz and the port reinforces this down to its tuning frequency of 60Hz. The port itself offers a very even response with little extra, unwanted output at higher frequencies; a testament to the work Monitor Audio have put into their 'HiVe II' straight rifled port design. The PL100s will not be the ultimate in room shakers, but the port is rear-firing and so will permit adjustment through positioning near a wall. The incredibly solid and weighty cabinet should also mean that the low end is tight and tuneful, with no boxiness.

The impedance curve shows no unpleasant surprises; although there is an inductive peak at around 2kHz this

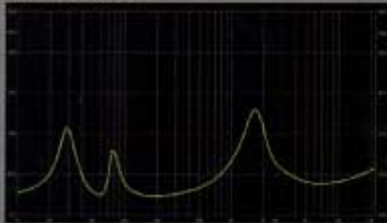
is not especially high and is unlikely to worry the higher calibre of amplifiers with which the PL100s are likely to be used. Average measured impedance is 6.9 Ohms, dropping to around 4 Ohms as a minimum so the PL100s are a genuine four Ohm load. Sensitivity is very good for a standmounter, at 87dB, so the MAs should be happy on the end of around 40 watts as a minimum. AS

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE



VERDICT

Brilliantly atmospheric, transparent and musical loudspeakers, but don't suffer poor partnering ancillaries or recordings gladly.

MONITOR AUDIO

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FOR

- treble space and delicacy
- transparency and insight
- unfailingly musical sound
- exquisite build and finish

AGAINST

- highly critical of ancillaries