

SPEAKERS

Monitor Audio PL 300

The Gold Signature GS60s appeared to be a turning point, one of those which you don't see very often in a manufacturer in the ranks of Monitor Audio.

One of those turning points in production full of concreteness yet maintaining a constancy in the formulation of sound that is decidedly praiseworthy. We at SUONO are pleased to be able to be the first in the world to touch it with our hands!

by Fabio Masia

In all fields there are exercises in style, products that have made history in their sector and which, in spite of the years of experience, are timeless, still current and still with lots of things to say. But, as in Formula 1, the car of today is the one which contains all the knowledge of current technology, materials research and production processes. Unlike the automobiles sector, fortunately, we are not in a race and, in our field there are no winners or losers, but the current technological content is of a decidedly high level and, as in Formula 1, often the mass produced products tangibly benefit from the fallout of technology developed on high end models.

From this points of view the Platinum series is decidedly at the high end, not an exercise in style or a "banal" gorgeous product hand made using exotic and unobtainable materials; indeed, it is an outsider designed with a view very much to the future and, for the time being, an occasion for Monitor Audio to look for a sound without placing limits on design. These limits obviously derive from the resources invested on the design, but these resources, in fact, as in Formula 1, must give results. Realisable results which help the company that can only have one shot at going beyond the limits set by the rigid laws of profit! It is no coincidence, that just like a true Formula 1, the line is made up of just three models: floor, pedestal and a central + subwoofer for A/V uses... From one point of view that is exactly what was missing from the history of the British manufacturer; a product from outside the range developed entirely in-house and without limitations dictated by economies of scale, which will perhaps come later reflecting on the rest of production. The Platinum project, that had remained in the shadows for over three years, in the penumbra of the laboratories and the minds of the designers, today (after a fleeting static exhibition in Las Vegas and a small taste given to anyone who visited the Top Audio and was able to hear them, albeit not in a happy acoustic situation) it is presented in its final form to the general public through the pages



of this journal; thus it has been decided thanks to an agreement between the "high echelons" of the manufacturing company and our publishers!

But what is the Platinum series exactly? With a philosophical formulation that faithfully traces the aesthetic concept of sound reproduction according to Monitor Audio, the aim of this line is to give results that go decidedly beyond mass production; the design, the components and the assembly solutions are new and all created ad hoc for this ambitious project, first among all speakers; they use technologies until now developed by Monitor Audio in both the forms and in the materials. But they go further, much further! The surfaces of the membranes are made with C-CAM (Ceramic Coated Aluminium/Magnesium) created by Monitor Audio, but the entire membrane is constructed like a sandwich using a Nomex honeycomb structure that joins the two C-CAM surfaces. The form and the mechanical characteristics are truly new and are developed especially for this project. The support frames and the mobile equipment highlight excellent mechanical workmanship and the pole pieces are cut from solid stock and worked according to standards decidedly outside the norm. The speakers used on the Monitor Audio Platinums indicate that today speakers can perform much better than "yesterday" – albeit dearly! The cabinet too has undergone a radical evolution in form, both outside and inside; the walls are curved, the back part is double cusped. The interior is reinforced to the max and composite resonance damping materials are used; from this point of view a radical break for the British manufacturer who, in one sense had always made the constructional aspects of the mere "container" a secondary aspect.

Another aspect of vital importance for a system of such very high standard is the versatility and the placeability in the environment; as opposed to commonplaces of any kind on large speakers, the positioning is very simple and does not show particular idiosyncrasies even when locating the speakers very near the end wall. If one places the system near the end wall, the level increases, but the typical negative effects of this solution are not perceived. The tuning tubes are located on the back wall, and this refutes once again the commonplace not to place the system near the end wall! Even from the point of view of the choice of partners we cannot see any particular idiosyncrasies; indeed, thanks to an easy to manage loading and good system sensitivity, the PL 300s, the floor model being tested, can be combined with any type of amplification.

Nevertheless, the great dynamic qualities, of control and low distortion tend to favour high power amplifications in order to take best advantage of dynamic "ranges" that are decidedly infrequent in the audio room; it is difficult to have

a system, albeit of not exactly small dimensions but so compact, which manages to reproduce a powerful, controlled and at the same time neutral field of sound.

The PL 300s are practically in a segment of their own, that of the outsiders! We have seen lots of outsiders in our field, at least as many as there are brands of a certain importance. So why did a manufacturer of the calibre of Monitor Audio never feel the need to develop a product of this category if until now they have avoided trying their hand at such ambitious systems? Generally, in our field we tend to make judgements starting from the product, from the performance of the product and the content of the product! In other words it is the product that gives away the intentions of the producer; I liked the Platinum series a lot and it no way gave me the feeling

of the classic exercise in style. Indeed, under many aspects it gave me confidence again in a field that, too often, expresses a little tiredness and lack of ideas! The PL300s, in their seemingly traditional choices, have new ideas, a fresh impetus and cannot be defined a "snob and elitist product"; indeed, they form the bases for the definition of a new threshold of the "value" that can be attributed to an object! Today they are undoubtedly a product offered at exclusive prices... tomorrow who knows!

REPROPOSING THE RANGE OF FREQUENCIES
As could be expected from a floor model this size, the extension of the frequency response is remarkable and very much pushes towards the limits of audible sound. After a quick hearing this system may not seem so generous in the bass, but this is due to the excellent damping and to the absence of crescendo increases and fading notes hanging on, which many competitors try and shout about, thus tricking the inexperienced listener. With the right records you soon realise that there is nothing missing here.

DYNAMIC CAPACITY

The dynamics are rendered with such fluidity and without particular effort that you almost don't notice the significant jolts of energy you are listening to. We are so often used to associating a strong dynamic increment with a sensation of greater aggressivity and hardening of the sounds that when this does not happen it takes us by surprise and it is precisely this that seems to be missing; yet in reality if you listen to an orchestral crescendo as violent and sudden as it is, the fluidity and naturalness are never missing and this is what happens with the PL 300s.

RECONSTRUCTION OF THE SOUND STAGE
It is quite easy to recreate an ample soundstage, which fills the audio room with a great orchestra or with Rock, with speakers of this size. It is more difficult keeping the correct proportions with the soloists but the rigour and precision of the system allows it to pass this test too. The only comment we can make is linked to the strong sensation of dryness in the reproduction to the point where you wish for more air between the various instruments on stage,

RECONSTRUCTION OF HARMONICS AND TONAL BALANCE
Extreme neutrality; Monitor Audio do not want to be dragged into discussions between warmth and coldness; they return the sound information as it is, without reductions but also without embellishments or euphonies that are not present in the record. The only thing that one could wish for a little more of is a greater refinement and subtlety in the higher frequencies that sometimes seem a little coarse, at least compared to the very high level of the remainder.

CARLO D'OTTAVI



Control and rigour, with these two terms we could quite simply forget about Monitor Audio. This model, however, truly deserves much more because it is a high class product, the closest one to us, the British one, not only for geographical reasons, but also for taste and style. In fact, from such well constructed, well-finished, substantial and voluminous speakers we could expect a sumptuous, abounding, if not exaggerated sound. We must not, on

the other hand, forget the experience, the aplomb, that *British style*, sometimes a little nebulous but which finds one of the most genuine exponents in names like Monitor Audio. So here we have dry acoustics, which give little or nothing away to the sensational preferring instead the quality and pleasantness of long relaxed listening despite an initial impression of poor involvement. Of course they are not speakers that fail to get noticed due to their size but the aesthetic choices, sober as much as elegant, appear perfectly in line with the musical character adopted.

STATED CHARACTERISTICS

Price: € 7,900.00
Dimensions: 28.8 x 108 x 36.8 cm (l x h x d)
Weight: 43.2 kg
Distributor: High Fidelity Italy
Via Colodi - 20123 Comaredo (MI)
Tel. 02.93.61.10-24 - Fax 02.93.56.2336 wvm.
mpieletronic.com

Type: on floor **Loading:** bass reflex, HiVe® II technology
Power (W): 100,300 **No. ways:** 3 **Impedance (Ohm):** 4
Crossover frequencies (Hz): 550, 4,000 **Frequency response (Hz):** 28-100,000 **Sensitivity (dB):** 90 **Speakers:** 2 Wf 20 cm RDT, Md 10 cm RDT, Tw C-CAM ribbon **Finish:** genuine leather front, wooden cabinet **Grill:** metal.

CONSTRUCTION AT THE TEST BENCH

VERSATILITY

AUDIO

CONCRETENESS FACTOR

QUALITY/PRICE

NOTES AND KEY

The scores are expressed on the basis of qualitative criteria relating to the quality/price parameter determined in relation to the class of the equipment. The concreteness factor is a parameter, fruit of our experience, which includes value over time and the reliability of the product, the brand and the distributor.

IN SHORT

New speakers, from all points of view, mainly handmade, not out of habit, but in order to obtain decidedly low tolerances in the workmanship; a beautiful, functional and effective piece of furniture. Finally the sound; the style is Monitor Audio, heaven forbid otherwise, but in a class that goes beyond our expectations.

What does this Platinum line actually represent? A Formula 1 product, as we have said, but as we get to know the product more and more, some of our convictions have been swept away. Yes, of course, the creation of a top of the range no compromise product such as this, meets the need (often of business marketing) to demonstrate its abilities at the high end of quality, especially if, as in the case of the British company, splendid things – almost by business definition - are not made just for the sake of it.

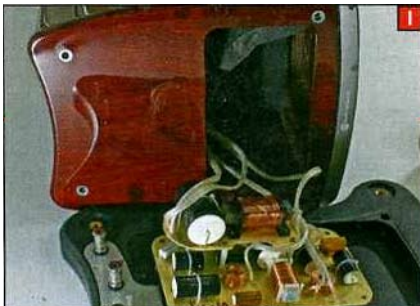
If anything here's a bit of haughtiness (as in: "never mind them just walk on by"); where the majority of competitors rely on mass production (even in the top of the range), Monitor Audio choose to do everything themselves; almost madness in the age of globalisation! The transducers, this is what we are talking about, seemed to be engineered in a remarkable way; so much so that in some ways, "after" the Platinum series, one could actually revise some of the criteria when judging the behaviour of speaker systems! We think in other words that the Platimums

are not just technological tenacity but represent the new way of thinking about the future, inspired by the criteria according to which when you do something you have to do it well, current and full of content!

The Platinum series, all in all (and in particular the PL 300s) is almost unique in its kind, since even the decidedly high price is not in the "unattainable" category, although we are behind the wheel of a refined Formula 1!



The PL 300s are a three-way system with four speakers. The two woofers are bass reflex loaded with the tuning tubes placed on the back panel, whilst the medium speaker is enclosed in a pneumatic volume made with a covering in the form of an ogive. The cabinet is shaped with curved wooden panels. Inside there is a vertical reinforcement baffle along the entire height of the cabinet with a very particular form; the entire surface is covered with holes of approximately 7 cm in diameter arranged in four vertical rows. Moreover, to further increase the mechanical stability of the system, the central panel is fixed to the bottom and the front panel with four steel ties (A) which place the structure under tension. On the front panel made out of MDF (B) another pressure die-cast panel is applied with a polymeric material with inert and dampening fillers added to it. The same material, developed purposely for this design, is used for the support base of the cabinet and the ogive shell of the loading volume of the medium speaker. The front panel, furthermore, is totally covered in leather and the holes of the speakers are very large, so much so that close to the fixing screws some small reinforcement islands has been left, so as to minimise the interaction with the back emission of the membrane of the speaker. Note that even the speaker has been made with an oversized flange, precisely in order to reduce the impediments between the back part of the cone and the thickness of the hole of the front panel. The two woofers (C) have the pressure die-cast frame with a very thick support flange (D) with an aerodynamic design which leaves space both behind the membrane and the coil, which is fully exposed (E). The precise and accurate movement even under high mechanical stresses is guaranteed by a double centre square, one near the magnetic gap and the other near the cone.



History tells how the *know how* of the Decca London Ribbon is the result of the experience obtained with the ribbon microphones. Stanley Kelly, Dick Sequerra and Alain Benard are the designers who more than any others were interested in the problems of such a delicate technology; to think that the ribbon is often 1/10 the thickness of a human hair! The structure and the mechanics of the ribbon tweeter built with this technology is relatively simple; a ribbon of conducting material, two magnets and a transformer required for adapting the impedance. In these terms the device seems simple, even simpler

than a traditional dynamic speaker, but analysing the dimensions at play one can see immediately that the transformer must be able to input a strong current practically on a short circuit (the ribbon) and the pole pieces must in practice have an "infinite" magnetic flow in order to reach a good level of system efficiency. As soon as we realise that the conditions for the creation of the transducer are at their limits, and always around the limits of the materials used and the working tolerances one has to work towards improving the characteristics of this transducer. In any case even the performance of such a system is at the limit: speed, consistency and damping are parameters that take on record values compared to other more traditional technologies; the Decca and another historical tweeter, Audax, with the aluminium membrane, were the only ones reproducing a signal with a square wave.



This solution is not very common and is present mainly on speakers used for heavy uses (typically in high performance subwoofers). But the surprises don't end here! The pole pieces of the magnetic group are lathed with numerically controlled workings. Let's remember that usually the characteristics of the magnetic field inside the magnetic gap depend directly on how the flow is directed; the homogeneity of the ferromagnetic material and the geometry of the pole pieces are key elements for a speaker that only with these precautions behaves in full respect of linearity and distortion. The impedance modulus of the woofer is nearly always above 8 Ohm and is presented as a resistive charge in the entire band in which it is used; practically a small masterpiece! The membrane is made out of a sandwich of two aluminium C-CAM sheets with a honeycomb Nomex core glued with dampening materials. In the detail (F) one can see the total thickness of the membrane and the thinness of the outer and inner sheets. The medium speaker (G) mainly uses the same technologies of construction with the NdFeB magnet and rare-earths. The membrane and the frame are of the same quality

and care of that one used in the two woofers (H). The moving coil has a large diameter and is fully immersed in the magnetic field. The gluing points between membrane and coil in particular are especially painstaking and also have beading of a relatively viscous adhesive. The typical alterations to the response due to the use of aluminium membranes are almost completely absent; the features that were unavoidably due to the resonances of the membrane, in the Platinum have been cancelled! The response of the medium speaker extends practically linearly very high and is acoustically intercrossed with the ribbon tweeter above 3 kHz. The filter (I) is made out of a simple enough outline considering the excellent features of the speakers and the fact that there is not much need for compensation. The tweeter exploits a third order with an equalisation cell; the medium speaker a first order, both upwards and downwards, with a series parallel RLC network that reduces an out-of-band resonance and the couple of woofers, connected in parallel, use a very simple second order. The components are of excellent quality, the metalised polypropylene condensers are made by ICW ClarityCap for Monitor Audio. The frequency response (**Picture 1**) is linear in the whole range reproduced. Horizontally one can notice a slight attenuation of the emission at the upper end, whilst vertically there is a more marked attenuation in the intercross between the tweeter and the medium speaker and in the high range of the tweeter due to the characteristics of the tweeter, than "a nearly cylindrical" emission of the height of the ribbon that extends far horizontally. The impedance modulus (**Picture 2**) is always over 4 Ohm, with a minimum of 4.3 Ohm at 5 kHz; the trend is extremely regular even if correction networks have not been made; an excellent result considering the relative simplicity of the outline of the filter.