



foam polymer helps to deliver a faster settling time for improved clarity and lower distortion. The design also has a graded termination for cone excitations, with the required mechanical damping controlled over a wider frequency range.

The substantial diecast alloy frame has an open-back structure for minimal reflections, as is evident from my midrange measurements, while the high temperature titanium voice coil former operates in a highly linear magnetic field using twin ferrite magnets, enhanced by a substantial eddy-current-suppressing, distortion-minimising copper cladding on the massive pole plate.

As would be expected the acoustic loading for the mid unit is critically tuned to match the crossover alignment, this driver operating in its own alloy enclosure, the anti-reflective interior enhanced by computer modelling of its geometry and spatial absorption behaviour.

#### Magico's best midrange yet

This midrange driver, nominally covering 350Hz-2.2kHz, is undoubtedly Magico's best unit of this kind to date, and much attention has also been paid to the new bass drivers: their 9in/22cm size is unusual, Magico explaining it's the largest that could be shoe-horned into the A5 baffle, but their exceptional throw allows each to perform much like a typical full size 10in/25.4cm unit.

The engineering is quite special: built on a new compact chassis is a huge ferro-ceramic powered motor, boasting a massive 5in/125mm voice coil wound on a high temperature titanium former, here including a copper clad pole, with particular attention paid to stabilising motor inductance in the face of substantial excursion or throw. If neglected this may be a source of higher order masking distortion which can also affect midrange transparency and dynamics, even to add a 'nasal' coloration to bass tones.

The exceptional magnetic field linearity facilitates a higher power low frequency bass output, here specified at a thundering 115 dB SPL claimed maximum at this frequency (@ 50 Hz, 1 meter with a short term 1000 W), while the graphene reinforced diaphragms are designed to operate as pure pistons in their working range of at least up to a few hundred Hertz.

#### Flagship tweeter tech

Magico explains that the 'one inch' tweeter dome of the A5 is based on the design of its flagship M-Series tweeters, and shared with the other A-Series models. In this version the 28mm pure beryllium dome does without the deposited diamond layer of the 'M' unit, and computer modelling was applied to optimise the behaviour, in respect of both timbre

and frequency response, and not just for maximum extension into the ultrasonic region.

Its compact, low-distortion neodymium motor system operates with a hollow pole leading to a rear chamber having anti-reflection, graded, back-wave absorption, while the milled alloy faceplate offers a shade of a shallow waveguide loading, while just sinking the dome apex below the front baffle plane. The naturally falling output at the extreme octave is not resonated or 'corrected' here, as this would impair the carefully designed time decay behaviour, which is notably free of overshoot or ringing.

Further supporting the claim to numerous original design features, the A5 is the first to adopt, after extensive testing, the latest and best power resistors from component and crossover specialist Mundorf, which company exhaustively tests its components, right through to highly critical listening tests – which I can confirm from personal experience are possible, showing that every part used in such a design makes some contribution to the whole loudspeaker.

Used in the A5 are the new M-Resist Ultra foil resistors, a world first usage in production and the result of years of development to deliver pure metal alloy on-substrate/heatsink resistors which claim greater power handling, with better transparency and 'tonal liquidity'. The Magico three-way crossover topology electrically marries the five drivers for best acoustic integration in the listener far field, where Mundorf build these crossovers to Magico's exacting specifications. Here the 'target function' is typically a precision 24 dB per octave Linkwitz-Riley filter, critically voiced in the acoustic domain, this including the driver responses, specified to 'maximize frequency bandwidth while preserving phase linearity and minimizing intermodulation distortion', which is fair enough.

Very high-quality components are fitted in the substantially dimensioned mid-treble crossover, including MCap Evo series PP/Alu-foil capacitors, air core inductors and those special high power metal foil resistors. Magico takes the crossover build very seriously, specify the use of 'high end' audiophile grade components where many designers may well take the crossover electronics for granted.

#### Sound Quality

From first hearing, the A5 was evidently and substantially musical, while remaining wholly unexaggerated when compared with many rivals I have experienced. Somehow it vaults those familiar physical limitations of sound reproduction I thought I knew so well, to create a genuinely close-your-eyes experience. The sound doesn't jump at you with a false sense of excitement, even though it will growl and roar well enough if fed a generous diet of clean