



Much excitement has surrounded the arrival of B&W's new 600 range. Haden Boardman listens to the babies of the family, the 686s...

Straight Six

B&W are famous for the Nautilus loudspeaker, their range-topping £35,000 tapered transmission line, with actively driven electronics; a speaker in higher demand today than when it was introduced a decade ago. The technologies incorporated within this unique loudspeaker have duly filtered down to the lower models, including the outgoing DM600 range - specifically the Nautilus Tweeter Tube - but it has to be said that the old 600 series was looking a little stale...

After ten years however, the original DM600 range has finally been replaced by the new 600 range (no 'DM' prefix any more). The model numbers have also now been reversed, so that the 686 is the current starting model. A small compact bookshelf, slightly deeper than one may expect, the 686 is beautifully made and well executed. Can this sub-£300 speaker cut the mustard in a way the older 600

models failed?

Technology wise, this small speaker borrows a huge amount from the more expensive CM models; in fact the 686 is based heavily on the CMI model, which sells for almost double the price. Chinese assembly (all the cabinets and drive units are made in Europe), a vinyl wrap cabinet, (with a thicker front baffle) and a fixed phase plug to the bass unit mark out the more obvious differences.

The tweeter is a huge improvement. Neodymium magnets allow for a much smaller 'footprint' allowing the treble unit to be located much closer to the bass driver. Square section ribbon style aluminium voice coil wire improves drive unit efficiency, power handling, and frequency range.

The matching bass unit is a traditional Bowers & Wilkins speciality; featuring a cone made from Du Pont Kevlar, a diecast chassis and large ceramic magnet. The fixed phase plug helps extend the higher

frequencies covered by the unit, with crossover at 4kHz. The crossover itself is total simplicity, consisting of just three components making up a simple first order, 6dB/octave filter - something I totally condone as a 'full range' speaker fan. There is a coil on the bass unit, a capacitor on the tweeter, and a simple resistor to match the level of the two items. This kind of crossover is not possible with poor quality drive units; the idea is taken directly from the 800 range and, other than the upscaled specification of the components, a virtually identical crossover can also be found in the current Signature Diamond! A first order crossover, and the close location of both drive units, should result in fine integration between the two drive units.

Supplied in the box are a series of port bungs, reminiscent of the Lovington Horn speakers reviewed a few months back. The back of the cabinet supports a small bracket for wall mounting along with the bass port and chunky biwire terminal.

Fit and finish are superb, with a solid trim ring hiding the bass unit mounting screws, and making a smooth transition from the edge of the cone to the cabinet.

With the exception of low 84dB sensitivity, the manufacturer's claimed specifications are very impressive. B&W quote an on-axis +/-3dB frequency response of 55Hz to 22kHz and minimum impedance is said not to drop below 5 Ohms. [see MEASURED PERFORMANCE].

For auditioning, the 686s were placed on heavy 60cm stands, located a metre from the rear wall, 70cm from side walls, and toed in towards the listening position. The speakers had a one hundred hour burn-in before any listening took place.

SOUND QUALITY

The first track on was from Ernest Ranglin, a bass-heavy reggae track. The little 686s had no problems playing the full force of this one; despite the small size of their enclosures, bass was impressive. Jimmy Smith's 'The Cat' LP has a few tracks mixing Hammond organ bass with acoustic double bass; on some loudspeakers the levels of colouration spoil the timbre differences between the two instruments and it becomes somewhat impossible to tell which is which. The 686s did a magnificent job, letting the clear textures of both come shining through. The speaker has been tuned a little for a slightly more 'impressive' bass performance, than true neutrality, but this is clearly no bad thing, as B&W have done the job well.

Midrange performance was equally impressive. Switching to Ricky Lee Jones's 'Duchess of Coolsville' Anthology displayed a clean, fast and detailed presentation, with low levels of colouration across the board. Upping power, a touch of Dinah Washington's version of 'Mad About The Boy' again underlined the speakers' incredibly smooth and punchy performance, albeit with a mild compression to the sound, compared to absolute references.

A little light opera had the speaker dutifully displaying an equally light touch. There was no overpowering or slowing down on a wide variety of classical material from string quartets to full orchestra, plus a couple of very solid Stravinsky recordings on Decca vinyl. If there was a criticism, this was perhaps that the speaker could be a tad too polite in the midband at times. Playing Tom Waits's first LP seemed to lack a little of the rough edge this recording has; although I admit this may not be

such a bad thing!

Treble-wise, I'll now confess my prejudices; I have never been totally convinced by metal dome tweeters. I still feel that the item used in the earliest 600 range is just about one of the worst I have ever encountered, but admittedly that was a decade ago. So what of the new version? Thankfully a much better animal. There is still a slight top end shimmer which is hard to totally quantify; it is not so much sibilance or extra brightness but there is a certain 'sound' to this tweeter, which is a constant reminder that a metal dome is used. The result is not so much 'spit', but more of a very minor addition to 'T' sounds. However, it is definitely in a different league to the older generation of metal domes, with none of the bell-like ringing exhibited by B&Ws of ten years ago; I am actually quite excited about listening to the high end diamond domes now!

Stereo image was tight but, given the technology, not as explicit as I would have expected. The soundstage was large, but did not step out of the boxes especially well; a peep inside the box revealed the possible source of the problem, with the crossover resistor and capacitor not exactly being the highest of tolerances. Along with the internal cable, improving these items is a possible DIY tweak to consider, once the speakers are out of warranty of course...

Most of the auditioning was completed on a reasonably pricey system but, as the 686 sells for £279, in the interest of balance, a budget system was assembled around the little speaker. Modest in price the 686s may be, but they demand a lot from their ancillaries. No sub-£300 amplifier could offer the level of power and control required by them. Budget amplifiers are simply not in these loudspeakers' vocabulary; they thrive on a high quality source, and a damn good amplifier, preferably one with bags of power. Thus I obtained best results with a mix of Cyrus, Pioneer and Marantz two channel amplifiers. In some ways this could be classed as the speakers' Achilles heel; in system

matching terms they must be classed more as £500 loudspeakers than a sub-£300 compact.

CONCLUSION

My previous sub-£500 reference has been, for quite some time, the Dynaudio Audience 42. Possibly even more demanding in terms of amplification, I still prefer the Dynaudio's treble quality and elements of the bass; but overall Bowers and Wilkins have more than caught up. The simpler crossover (the Dyn' has impedance correction – something I find 'damps out' the overall sound) allows more spark and emotion to the music, and the 686s cost £120 less...

All in all, B&W's new babies are budget speakers in price, but not in performance or demands. Sophisticated and mature in their sound, the 686s are a little gem. They rank leagues above the older DM600 range, and I can think of no similar loudspeaker that captures the thrill of high fidelity at the price point. Strongly recommended.



REFERENCE SYSTEM

Marantz CD12/CDA12 CD player
Sowter passive control unit
HH Electronics TPA50D amplifiers
Chord Signature interconnects

HI-FI WORLD

VERDICT

Highly accomplished small loudspeakers with a fast, detailed and punchy sound - but careful matching needed.

B&W 686 £279

B&W Loudspeakers

+44(0)1903 221500

www.bowers-wilkins.com

FOR

- overall sound
- astounding value
- build

AGAINST

- need good ancillaries
- slight treble 'sound'

MEASURED PERFORMANCE

The overall frequency response of the B&W 686s is smooth and even across the board, with just a slight lift of 2dB or so towards 20kHz, which will add a nice sense of atmosphere to proceedings.

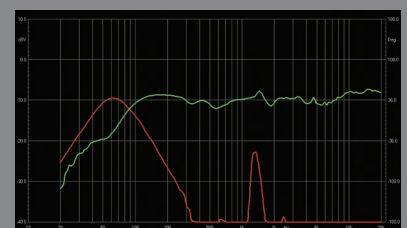
Bass output is good down to 90Hz or so from the main driver, with the port taking over and peaking in output at 60Hz. This is a fine result for such a small loudspeaker and B&W's 'Flowport' technology can be seen in action under measurement as output from the port is very clean.

Electrically, the 686s are fairly benign, although not that well damped and they do have an inductive peak at 2kHz. Average measured impedance was 7.7 Ohms, dipping to a minimum of around 5 Ohms, so they should not be too difficult to drive. However, their low sensitivity of 83dB will require a certain amount of muscle to successfully get them singing - budget for 40-50 watts minimum ideally.

All in all, the 686s turn in the sort of accomplished performance that would be expected of a manufacturer like B&W and should sound good as a

result. The fact that this is achieved with a minimum amount of crossover speaks volumes for the design of their drive units. AS

FREQUENCY RESPONSE



Green - driver output
Red - port output

IMPEDANCE

