

PMC Twenty5.24

CHRIS BRYANT FINALLY GETS AROUND TO TRYING A SPEAKER FROM PMC'S NEW RANGE!



PMC has introduced the *Twenty5* range of loudspeakers to celebrate its 25th anniversary which is quite a milestone in any Hi-Fi company's life. This £4,470 two-way floorstander sits near the top of a range which includes a couple of stand-mounts (suffix *21* and *22*), and three floorstanders (*23*, *24*, and the three-way *26*). Styling is very reminiscent of the *twenty* series although these are reportedly a total redesign, the most obvious visual difference being the plastic mouldings that fit into vents in the front panel.

PMC uses Advanced Transmission Line (ATL) technology, which offers some advantages over ported and sealed boxed designs. The line has been lined with frequency selective, absorbent foam, and PMC's new 'Laminair' technology controls the airflow at the transmission line exit. By ensuring the air flow was as devoid of unwanted turbulence as possible, the reduced resistance ensures the line works more efficiently. An additional frequency-selective, foam-lined absorption chamber further reduces coloration, while the increase in back pressure necessitated a redesign of the bass/mid driver.

The 6.5in 'G-weave' cone is a mixture of fine-weave glass fibre and pulp, resin-bound to produce a driver that is stronger than paper with lower coloration. It has a rubber surround and inverted glass fibre dust cap. The tweeter has a 'Sonolex' fabric soft dome and ferrofluid, and is made to PMC specification by SEAS. The grille does more than protect, as its designed acoustic loading creates a smoother off-axis response with improved directivity.

The *Twenty5.24* still uses the backward-sloping cabinets seen previously, architecture that improves rigidity and reduces internal standing waves according to PMC. They use top quality HDF and are finished in Oak, Walnut or Amarone wood veneers. (Diamond Black is another alternative.)

The crossover is built on a high quality glassfibre PCBs, using heavy duty conductive copper tracks for lowered resistance and improved power handling. This is connected straight onto plated rhodium/copper terminals. Each component is located on the board to minimise unwanted interaction and thus ensure the designed

sound quality. Even the rear polished stainless steel back panel is chosen as magnetically inert. The crossover is a complex fourth-order design, as PMC favours steep slope passbands with minimal overlap between drivers. It's set at 1.8kHz which means the tweeter is asked to go deeper than usual, but the steep crossover slope helps control the power input.

Measurements

The designer obviously hasn't tried to make the response ruler flat. On the bass/mid driver axis the treble is set bright 5kHz - 20kHz. Even 15 degrees above and below the listening axis there's still a surprising excess of treble energy. The treble is raised at even 30 degrees laterally off-axis and at 45 degrees off-axis it is still obviously quite hot. Conversely the midrange is depressed 1kHz - 3kHz so it will never sound hard or forced even when played loud. Nearfield measurement also reveals considerable reinforcement below 100Hz from the transmission line, and respectable acoustic power to below 30Hz.

A sensitivity of 89dB is claimed, but the upper-mid suck-out makes this difficult to judge; perhaps 87dB is nearer the mark. The impedance curve dips to a very acceptable 5.3ohms in the treble; elsewhere it's a very easy 8ohm load, so they will be compatible with most amplifiers.

The waterfall plot displays a well-controlled, fairly fast decay. The room average response continues to reveal the excess of treble energy, and in my room the bass frequencies appear above the midrange level irrespective of speaker placement or listener positioning. The upshot is that the midrange is slightly depressed, but the treble is smooth and the bass quality is very good: free from boom and with fine extension.

Sound Quality

First impressions were dominated by bass extension which has more depth and power than expected from this size of loudspeaker. The midrange was sweet and devoid of any shout or glare and the treble, while clear and detailed, was rather more obvious than I'm used to.

The best thing about these speakers was that they immediately sounded musical, with good rhythm and timing. They were well run in, and

CHRIS BRYANT

tended to sound bass rich no matter where they were placed. I found that the grilles had little influence tonally, but dynamics suffered slightly.

After some intensive listening to well known tracks, we decided that they sounded smoother if pointed straight ahead. One younger listener commented that the treble was just too bright, but after a while we almost got used to a trait that was somewhat material dependent, and started to appreciate other qualities. The treble is detailed, timed well with the midrange and produced a performance that was always lively. It's extended and articulate, has great detail and surprisingly is not prone to sibilance. It focuses pretty well too and forms complex images with dependable precision.

The midrange is a bit laid back but somehow manages to sound detailed and informative. It is capable of surprising subtlety at times: the micro dynamic structure of the music is quite natural with great low level detail. It images fairly well and staging is well ordered and stable. The midrange suck-out in the frequency response is obviously intentional, but all who listened adjusted quite quickly to the balance.

When I reviewed the twenty.26 three-way a couple of years ago it had a remarkably similar response. It's certainly a way of dealing with the glare and hardness produced by some solid state amplifiers and digital sources. However, there are sweeter sounding amplifiers and sources available, so I would also like to hear a *twenty5.24* made with a flatter frequency response working in a good system to find out just what this design could do.

Not at all what one would expect from a 170mm driver, the bass is powerful and goes significantly louder than most speakers of equivalent size, producing realistic sound levels even in fairly large rooms. It integrates well with the midrange and, despite some unevenness, it appears on time and sounds enjoyably upbeat on most material. Positioning is quite important for both the loudspeakers and the listener to get the best out of them but that's true of most good speakers.

Inserting the *twenty5.24s* into a high end system was a surprise. As I swapped various piece of equipment for state of the art components, covering everything from speaker cables, through amplifiers, interconnects, pre-amplifiers, and sources, the sound kept getting better. While that is not particularly surprising in itself, it is the speakers' wonderful capability to read the quality of the signal fed into it that amazed. They just got better and better, and started sounding like high end speakers, delivering a sound that was

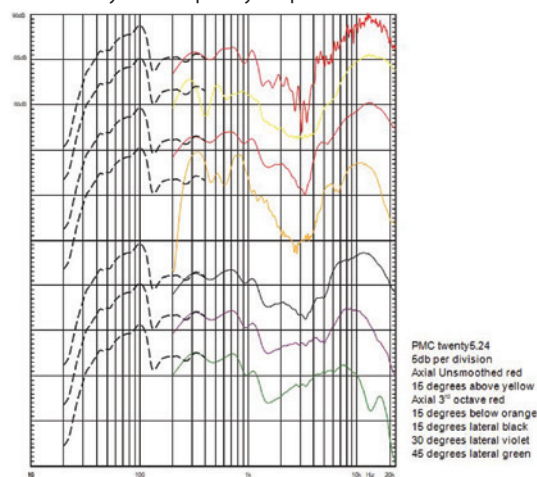
often close to the state of the art. I'm well used to hearing good equipment, and this managed to produce some of the best sounds around. Detail that I'd never heard before coming off well loved material is not something that happens that often with affordable speakers.

These transducers are therefore remarkably informative and capable of exceptional information retrieval. They can conjure a sense of performance and create a vivid soundstage which is really very natural and almost tangible.

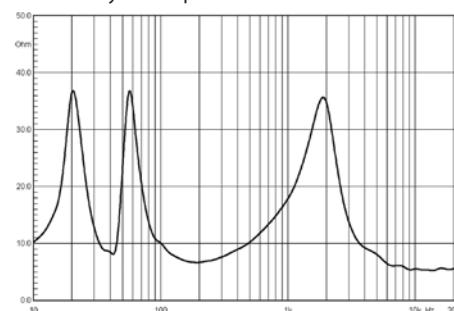
Conclusions

I can't think of another loudspeaker capable of creating such an entertaining performance at this price level. All who listened to them found them exceptionally enjoyable. Admittedly they don't have the smoothest frequency response: the treble is somewhat pronounced and the bass can come on heavy too. But since the midrange dominates most music, the excesses will probably be rather less noticeable than the measurements may suggest. It's a relatively benign load and they respond remarkably well to insertion into a high end system. If all components are carefully chosen, they're exceptionally capable, and clearly deserve a Best Buy rating.

PMC twenty5.24 Frequency Responses



PMC twenty5.24 Impedance Curve



PMC twenty5.24 impedance curve

HIFICRITIC
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Test Results

Maker	PMC
Model	twenty5.24
Country	UK
Finishes	Amarone, Oak, Walnut & Diamond Black
Size (HxWxH) cm	101.5x19.2x41.9 (without grille)
Weight	23kg
Type (transmission line)	2-way, 170mm fibreglass composite cone bass/mid, 27mm soft dome treble
Sensitivity for 2.83V	87dB
Amplifier Loading	8ohms, 5.3 ohms min
Frequency response – axial	27Hz – 25kHz ±5dB
Frequency response off axis	Good plus – see graphs and in room response
Bass extension	-3dB, 27Hz in room, 38Hz anechoic
Maximum Loudness in room	109dB
Power rating (max/min)	200W/30W
Placement	Free standing, floor spike coupled

Contact:
PMC Ltd
www.pmc-speakers.com
Tel: 01767 686300