



Walk the line

David Price provides the muscle as he samples PMC's twenty5.23 transmission line-loaded floorstanding loudspeaker

Breathing is everything. Whether trying to run faster, climb higher or develop more power from your car engine, the ability to take in and expel air is critical. This holds for loudspeakers too, and most manufacturers follow a well trodden path. Bass reflex loading is what you'll see in most, while transmission line designs are far more unusual – not least because they're harder to get right. They load the bass driver by what's effectively a long tunnel of air, specially tuned to allow certain bass frequencies to vent out into the atmosphere. This sees them emerging with the same polarity as the bass driver's frontal radiation, in effect acting as a secondary bass unit.

The twenty5.23 gives an authoritative performance that's devoid of any vices

PMC has been doing transmission lines for decades, and this is the hallmark of its loudspeaker range. Its variation on the theme is Advanced Transmission Line (ATL), which sports very careful tuning, construction and acoustic material inside. The benefits start with the fact the air pressure inside the cabinet is pretty constant so the bass isn't a moveable feast, depending on the frequency being played at any one instant. PMC claims it reduces distortion, which in turn doesn't pollute the midrange and treble. Efficiency and bass extension are said to be better and the speaker as a whole behaves more consistently at differing volumes. PMC uses a special Laminair vent to exploit these advantages, reducing the turbulence at the port, which impedes airflow.

Just like one swallow doesn't make an autumn, a bass loading system doesn't make the loudspeaker. The twenty5.23 sports a PMC-designed, SEAS-made 27mm fabric soft dome tweeter, cooled by Ferrofluid. This crosses over at a unusually low

1.8kHz to a single 140mm woven glass fibre coned mid/bass driver with cast alloy chassis. This stiff cone material is new for this manufacturer, which has previously used doped paper; PMC says it's able to deliver greater excursion than before, making for a lower distortion and improved power handling. The transmission line that this is at one end of is effectively 2.4m long, which is quite remarkable considering the speaker stands just 907mm tall.

In effect, the twenty5.23 is a compact floorstander sporting a complex loading system for its two relatively conventional drive units. The traditional drawback of transmission lines is that they're relatively power hungry; the quoted sensitivity is good for its type, but is a good few dB down on the class average. You'll need a punchy solid-state power amplifier with a minimum of around 100W RMS per channel to really get the best from it. I find Exposure's 3010S2-D (HFC 397) is up to the task, but the more watts the merrier.

Sound quality

There's something of a TARDIS-like quality to this speaker, which behaves more like the sort of large three-way

DETAILS

PRODUCT
PMC twenty5.23

ORIGIN
UK

TYPE
2-way ATL floorstanding loudspeaker

WEIGHT
15kg

DIMENSIONS
(WxHxD)
162 x 907 x 330mm

FEATURES
• 1x 27mm tweeter
• 1x 140mm mid/bass driver
• Quoted sensitivity: 86.5dB/1W/1m

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design you find in studio monitoring environments. Its bass doesn't thunder like a top JBL with a wide front baffle, yet it has a wonderfully authoritative quality that is always there. Even, firm and insistent, the bottom end is quite unusual in this category of floorstander and you're quickly aware you're listening to something a bit out of the ordinary.

Kraftwerk's *Tour De France* is a brilliant techno track, ranging high and low and proving a real work out for a serious loudspeaker. The twenty5.23 flies through the test, serving up a wonderfully accurate, highly musically satisfying sound. The bass is a joy, but what really impresses is how well integrated it is into the rest of the speaker, and just how good the rest of the speaker is. The bottom end reminds me of a Quad electrostatic, but with far greater travel on the panel. It's tight, taut and dry, yet there's a certain barrel-chestedness to it; when the song demands that large tracts of low notes be played, it's not the speaker that blinks first – usually it will be the amp. It pushes out large amounts of low frequencies, yet they're not overblown or out of control. As there's no obvious artificial bass peak built in, the sub-100Hz area is so even that some will even feel it's a little light.

4hero's *Cosmic Tree* quickly disabuses the listening of this idea. It has some wonderful, deep Moog bass, which plumbs the very depths of even the largest of loudspeakers. Most simply fail to reproduce it, but the twenty5.23 makes a surprisingly manful job of it. All the same, this speaker is so much more than this. The supple jazz-infused rhythms of the 4hero track shows it is innately musical; it just loves getting into the

The airflow of the twenty5.23 is key to its robust sound



Q&A

Keith Tonge

Marketing manager, PMC



DP: What sort of sound did you set out to achieve with the twenty5.23?

KT: Our aim is to produce a speaker you listen through rather than to. We avoid any colouration that could detract from the original musical performance, therefore the listener experiences exactly what the artist intended. The twenty5.23 is the most popular loudspeaker we produce, and the size, look and ease of drive opens it up for virtually any keen music lover.

Who worked on this speaker and why was a TL chosen?

The chief designer was Oliver Thomas and Peter Thomas was involved at every key stage of development and the final voicing. Transmission Lines are not the easiest way of designing or building a speaker as there are far more variables than a sealed or reflex design, but there are many more advantages. The ATL (Advanced Transmission Line) is coated in very specific absorbent materials that absorb unwanted colouration, producing a cleaner, clearer bass and midrange. The vocal region is beautifully defined and natural as there isn't any harmonic distortion to mask it. They are also easy to drive, produce smooth, deep bass at low levels and perform like a speaker of far larger stature. The breakthrough addition to the twenty5 series is the use of our Laminair air flow technology, which eradicates air turbulence and resistance at the end of the line making the flow of air faster and quieter; hence the bass is more nimble, dynamic and uncoloured.

What drivers are used and why were they chosen?

The Sonolux soft dome tweeter was co-engineered with SEAS of Norway, and the mid/bass unit was a ground-up project for the new-style ATL, which has incorporated the Laminair vent. It uses a bespoke design that uses a very tight weave glass fibre for strength and above all extremely low colouration. This material is as neutral as paper, but can withstand far higher pressures and excursions.

IN SIGHT



- 1 27mm tweeter
- 2 140mm mid/bass driver
- 3 Loudspeaker binding posts
- 4 Laminair air vents

groove. Once it's there, you can drink in all that lovely midband detail it throws out, and marvel at how even and seamless everything sounds. The PMC sounds more expensive than it is, giving a commanding, authoritative performance that's largely devoid of any vices. Instead, your attention is drawn to the music, and the speaker itself largely dissolves away.

This said, it has its own character. It's not invisible – no transducer ever is – and this personality is evidence in all music you play. The PMC likes to frame everything through its very own prism, making music sound dynamic, solid and muscular. It's not the sort of speaker to write poetry and muse at the wonder of life; rather it just wants to get physical and push along the groove in a gutsy, unrelenting way. That's why when you play very simple acoustic music, you can find yourself wanting a more sensitive portrayal. Neil Young's *Sugar Mountain* sounds great, yet I can't help wanting to play something with a big, pumping, robust beat rather than Young's tender vocal and acoustic guitar. Flick to the great man's *Ohio*, and suddenly the joint is jumping again and the PMC is lapping it up. I'm not saying that this speaker is in any way bad with certain types of

music, it's just that it never turns down the opportunity to take its shirt off and show its muscles, so to speak.

My Deutsche Grammophon pressing of the Berlin Philharmonic's reading of Beethoven's *Pastoral Symphony* (with Karajan twiddling the baton) is a case in point. While some speakers major more on the textural quality of the recording – the delicious sheen of the strings and the vast three-dimensional space of the concert hall, for example – the PMC goes straight for the rhythmic jugular. Tonally it is slick and smooth with no sense of any unwanted peaks or troughs across the audible frequency range, and this contributes to its feeling of being 'all of a piece', rather than several drive units fighting it out between themselves. It shines a bright light across the midband, revealing much about the original recording, yet never descends into harshness. Tonally it's pretty neutral, giving a fine insight into the actual sound of the orchestra; nevertheless it seems far more interested in the flow of the music, and its dynamic impact. On crescendos it is spectacular, sounding totally in control yet turning out seriously high levels of sound. It seems to live for these sorts of moments, kind of like a sports car that only really comes alive on the track.

Conclusion

Expensive for its size, as soon as you hear it in anger – so to speak – it becomes apparent that PMC's twenty5.23 is something of a snip at the price. It serves up an authoritative sound that majors on power and punch, but is smooth and sophisticated too. Its bass is a treat – quite unlike many conventional reflex-loading designs. As such, this loudspeaker comes highly recommended but still won't be for everyone; with this even more than most, auditioning is essential ●



KEF's R900 (£2,749) is a big mid-price floorstander with twin 8in bass drivers and the company's Uni-Q tweeter/midrange driver array. In short, it's an interestingly engineered speaker, which turns out to be extremely capable on demonstration. Just as well for the PMC twenty5.23 then, that it is too. The former has superb stereo imaging and great power and punch, whereas the latter exceeds even this in terms of the vast tracts of low, even bass it can deliver – and its super dynamic tracking ability. The PMC cannot match the KEF's excellent, pin-point stereo soundstaging, even if it is still very good in this respect.

Hi-Fi Choice

OUR VERDICT

- SOUND QUALITY** ★★★★★ **LIKE:** Muscular, dynamic sound; clean, open and articulate
- VALUE FOR MONEY** ★★★★★ **DISLIKE:** Needs a powerful amplifier to give its best
- BUILD QUALITY** ★★★★★ **WE SAY:** Excellent compact floorstander with real design flair
- EASE OF DRIVE** ★★★★★

OVERALL

