German Physiks HRS-130 floorstanding loudspeaker

by Alan Sircom

We are big fans of the German Physiks Unlimited Mk II, and not exactly dismissive of the whole omnidirectional loudspeaker concept as a whole, so the chance of looking at the more uncompromising HRS-130 floorstander from the German Physiks range was met with a fairly enthusiastic 'yes' from the team.

The German Physiks line is comprehensive, stretching from the comparatively humble Troubadour and Unlimited models, right up to the wardrobe-sized, cost no object Gaudi Mk II, but all share a common driver unique to the brand. Brainchild of mathematician and engineer Peter Dicks, the Dicks Dipole Driver (DDD) is something uniquely and genuinely different in a world of 'me too' cone and dome loudspeaker driver designs. The DDD here features a carbon-fibre cone, tightly rolled into what looks like a downward-firing megaphone horn. The DDD's voice coil, spider, and basket are built into the 'hat' at the top of the HRS-130's cabinet, and the cone fires into the body of the loudspeaker. Except that it doesn't: the large outer surface area of the cone radiates a virtually full-range signal (without crossover, the drive unit stretches down to about 70Hz, and up to 24kHz). Except that, once again, it doesn't: the cone acts like a four-way loudspeaker system in its own right, operating within strict Thiele/Small parameters in lower frequencies, like a pistonic driver across the midrange, a fully bending wave loudspeaker (not dissimilar to distributed mode loudspeakers and balanced mode radiators) by around 1kHz, and a dipole in the high treble and beyond. All from one drive unit, with no crossover.

Conventional loudspeakers tend to produce stereo images that can only be best enjoyed from one 'sweet spot' in the room. Move away from that position and both the stereo image and tonal balance become progressively degraded. This is because pistonic drivers tend to 'beam', or concentrate their radiation pattern. Worse, this concentration is proportionate with frequency; the higher the frequency, the narrower the 'beam'.

By contrast, the DDD driver's omnidirectional radiation pattern means the HRS-130 is designed from first principles to produce stereo images that can be enjoyed from a wide range of listening positions in the room, while maintaining an even tonal balance. This not only frees the listener from the constraints of the 'listening chair', it also produces a sound not dissimilar to the kind one gets in a concert hall. German Physiks goes further, though, and suggests that freeing oneself from the tyranny of the sweet spot creates a more relaxed listening experience. The downside to all this, of course, means you ▶

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no longer have the 'only one good seat in the house' excuse for not inviting others into your man cave.

In the more affordable models in the German Physiks range, the DDD unit sits at the top of a cabinet (usually a tall cabinet, and in the case of the HRS and Unlimited models, tall and thin). This cabinet extends to a downward firing bass unit at the bottom of the loudspeaker. In the case of the HRS-130, this is a 250mm driver used in the company's considerably more expensive PQS-402 model. This driver covers the low frequencies (German Physiks claims down to 29Hz) up to 220Hz, letting the DDD cover the rest of the frequency range. The bass driver vents down and out through eight holes cut in the bottom of the octagonal cabinet: do not mistake these for grab handles while moving the loudspeaker, or you'll end up possibly pushing a finger through the loudspeaker surround by mistake. Similarly, resist the urge to hold the loudspeaker by its flying saucer hat when trying to move the loudspeaker – it would be like trying to pick up a conventional loudspeaker by its magnets. The new cabinet and the choice of driver meant a new crossover design, which the company suggests improves dynamics and resolution in the process.

That octagonal cabinet is not simply for looks, although it has a sculptural appeal and the highly polished polyester finish looks really good in the flesh (other finishes are available). German Physiks learned a lot from its other designs, here, and the more expensive Borderland Mk IV loudspeaker uses a similar (albeit larger) octagonal cross-section cabinet. The panels on this cabinet are smaller and stiffer than those of an equivalent size square section cabinet

would be. This is claimed to reduce cabinet vibration, which would otherwise mask fine detail. Furthermore, the cabinet's rigidity is increased by use of critically placed internal bracing, and a special damping material called Hawaphon is applied to the inside of each panel, which converts vibration energy into heat and adds mass to the panel, ensuring that the residual cabinet vibration is extremely low.

As might be expected from an omnidirectional, installation is simple, and involves taking the loudspeaker out of the box and putting it in roughly the right places in the room. Fine tuning the installation will likely result in a better overall sound, but not to the level of conventional direct radiators. If you are the kind who needs to move loudspeakers carefully in a room to satisfy your desire to get the last one per cent out of a loudspeaker, you are either going to learn that you already got as good as it gets from a 'first fit' install, or spend frustrating weeks moving the loudspeakers slightly with no overall effect. Consider the HRS-130 an audio tweaker's deprogramming course.

On the other hand, the HRS-130 does come with a four-position HF output selector on the rear panel, which can be set to -2dB, flat, +2dB or +4dB. This is more to do with the room design, materials, and furnishing (omnis are a little more sensitive to their environment than direct radiators, because they bounce sound around the room). It's worth experimenting with this HF adjustment, but do it over a few days instead of an afternoon: we tend to go a little brighter than is truly accurate when making short, sharp decisions. Typically, though, most European domestic environments come out 'flat' here, with -2dB suitable for the minimalists in glass, +2dB useful for timber-based buildings, and +4dB for someone living in a Victorian drawing room filled with heavy drapes and soft furnishings. Room size may be a factor in choosing the right setting, too. Beneath this selector switch are two sets of high-quality WBT: nextgen loudspeaker terminals with solid jumpers. In fact, 'solid' could be the watchword for the whole HRS-130 design. It feels well-put-together, from the cap to the stainless steel spikes (I'm not convinced these are in any-way necessary here, but it's good to have the option of armour-piercing spikes should the need arise). The whole package bespeaks of an investment in the future of your music listening, rather than a passing phase.

Our speakers arrived fully run-in and ready to roll, but a solid 24 hours or so of running in is recommended by German Physiks. But their lack of 'fuss', both in positioning and choice of partnering electronics suggests something as 'foo' as run-in is not on the company's radar. These are reasonably unfussy loudspeakers to drive, although they worked best with solid-state amplifiers. Like the Unlimiteds before them, they love current. A goodly number of watts are gratefully received, but what the HRS-130 really needs is some nice, firm amperes.

This is never going to be an 'all things to all people' loudspeaker, because too many of us are too well dunked in the way a conventional loudspeaker is supposed to sound, to accept something as different as an omnidirectional speaker. We have grown used to the recording studio conceit of replacing the musicians in the room with focused images of people in a room, where in reality pin-point placement of sounds is not quite as 'pin-point' as it might first seem. You will locate a sound in a three dimensional space, but unless you are being hunted by something red in tooth and claw, you don't locate it with the kind of precision one might hear from a good stereo soundstage. Where this becomes obvious is going to a concert hall, listening to the music, then going home and listening to a recording of the same music. We don't hear strings that delineated in the concert hall. We hear a hell of a lot more information from that string section, in terms of dynamic range, timbre, tempi, scale, energy, and the rest. We know on some deep-seated level that these are real instruments. But, we don't have the sound hovering in three-dimensional space the way it can on record. It's a conceit we are more than prepared to put up with, because those other aspects of the recording are harder to find. The HRS-130 takes on that conceit, and shakes it loose.

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Unless you go with an omnidirectional, where the spatial properties of sound seem more natural and unforced, and as a consequence so do the musical instruments on the recording. Once you get used to it, then, the sound of the HRS-130 is beguiling. Once you get it, then, it's more like you moved the concert hall into the living room. You get a lot of the scale of the orchestra, shoe-horned into your room, and a sound that washes over you and envelops you, rather than stays on the other side of the room.

If you do find yourself liking the presentation of the HRS-130, going back to a direct radiating loudspeaker may prove impossible. It simply won't sound *right*, anymore. This is not hyperbole: If you listen, and like, going back is difficult. It's not just the imagery; the sound is naturally coherent, in a way that makes you think listening to a cone and dome box is listening to some drivers and a crossover. Jazz piano sounded particularly fine here: 'Inception' by McCoy Tyner on the album of the same name [Impulse!] has the physical presence and 'thereness' that helps accent the youthful modal experimentation of this important player, yet also helps show his hard bop roots. This doesn't normally come across, because it often sounds like pure bebop, rattling along at speed. The space around the notes (and I know that sounds pretentious) is very well handled here, allowing the modal jazz roots to shine through.

The Unlimited II was not the most vocal friendly loudspeaker around. Vocals were articulate and detailed, but they were also diffuse and almost disembodied. Because we are so attuned to the human voice, we do pin-point voices in a three-dimensional space, and when you can't do that with the same acuity, it can be jarring. Fortunately, the HRS-130 brings extra bass, and with it extra rootedness and solidity to the human voice. Even oddly-pitched voices, like Antony Hegarty's occasional falsetto on 'You Are My Sister' from *I Am A Bird Now*, by Antony and the Johnsons [Secretly Canadian], hung together well and sounded more like a real person singing.

The HRS-130 is consequently more of an all-rounder than you'd expect from an omnidirectional speaker. Electronic dance music is still a little bit of a reach, but not as much as you might think. The HRS-130's bass notes are deep and powerful – far more deep and powerful than the Unlimited, naturally – but are slightly more rounded and intended for 'organic' bass played on acoustic or amplified instruments instead of synthetically generated notes. The obligatory 'Chameleon' by Trentemøller [*The Last Resort*, Poker Flat] had deep, room-filling energy, but the speed of some of those sub-bass triplets get a little congested on the way out of the bottom of the HRS-130.

I liked the Unlimited a lot, but I like the HRS-130 a lot more. It brings more bass and more dynamic range to the proceedings, with no significant downsides. This is a solidly engineered loudspeaker with a sound that polarises opinion, but if you love it and love being truly immersed in sound, you'll never buy another conventional box again. +

TECHNICAL SPECIFICATIONS

Operating Principle: two-way loudspeaker with 360° surround radiation
Frequency Response: 29Hz–24kHz
Sensitivity: 86.9dB/W/m
Impedance: Four Ohms
Power Handling (Nominal/Maximum): 120W/200W
Amplification required: Minimum 70W/4ohms
Crossover frequency: 220Hz
Crossover slopes:
DDD Section: 12dB/octave (electronic), 18dB/octave (acoustic)
Woofer Section: 12dB/octave (electronic), 18dB/octave (acoustic)
Input connectors: 2× binding posts
High frequency adjustment: –2dB, Flat, +2dB or +4dB, centred at 8kHz
Drivers: 1× carbon-fibre DDD driver, 1× 250mm woofer
Finish: satin white, black, high-polish veneer, carbon-fibre options
Dimensions (WxHxD): 32.5x126x32.5cm
Weight: 34.5kg

Price: £11,900–£15,450 per pair, depending on finish

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