

Cabasse Pearl Pelegrina Loudspeaker

Review: [Andrew Everard](#), Lab: [Paul Miller](#) | Aug 8, 2022



Availing itself of the latest DSP and Class D amps, the Pearl Pelegrina is a sophisticated 'connected' speaker

There's no escaping it: sitting in front of Cabasse's Pearl Pelegrina, the £22,599 flagship of the French company's Pearl speaker range, the punning phrase 'the eyes have it' kept going through my mind, so great was the sense of these spherical enclosures fixing me with a beady stare. Of course, this look is nothing new for the designers in Brest, out on the tip of Brittany: at the top of its range is the huge La Sphère

loudspeaker [*HFN* Feb '10], its 70cm globe perched atop a helical stand, and driven by a rackful of dedicated crossovers and amplifiers.

The Pearl Pelegrina, named for a 55 carat pearl discovered in 1913, has been made to celebrate the 70th anniversary of Cabasse, which is why it comes in a limited edition of 70 pairs, each individually numbered on a plaque on the base of the stand. The Pearl range includes the compact Akoya, and the 2.1-channel Keshi system whose sub is available separately.

Loving The Alien

Whether the Pearl Pelegrina is a more domestically acceptable version of La Sphère rather depends on how much of a visual impact you want your speakers to make. After all, its 'ball' may measure a more compact 42cm in diameter and – like all the models in the series – the speakers may contain all the amplification required to drive the four-way driver configuration within, but there's no denying that with their helical stands they make a statement, whether in white or black.



A 42cm spherical 'cabinet' is mounted atop a Lissajous pattern frame with the treble, midrange, low midrange and subwoofer amplifiers, and custom DSP, all housed inside a circular base

With their driver covers in place, and all their wiring concealed in those convoluted legs, there's little to give away what they are, or how they work, adding to their slight air of menace and other worldliness. Nothing here is conventional: the main driver assembly is what Cabasse calls a 'tri-coaxial' array on the front of the sphere, combining low-mid, midrange and treble drivers, while a 30cm version of the company's in-house HELD bass unit fires to the rear.

Sphere Factor

Each driver element is powered separately thanks to DSP crossover control, Cabasse claiming 300W apiece for the treble and midrange, 1250W for the low-midrange driver, and a massive 1850W for the bass. A 134dB peak sound pressure level is also claimed for 1m, but the company does acknowledge these are all figures at the uppermost limit and that protection circuitry is used to avoid damage to drivers and amplifiers.

The sphere here is purely the speaker: all the (Class D) amplification and control systems are in the base of the Pelegrina, keeping all the connections down at ground level. This is a complete 'system in a speaker', with built-in streaming capability as well as conventional analogue and digital inputs, and extensive DSP to manipulate the sound, from CRCS automatic room optimisation using microphones built into the speakers to what the company calls DFE (Dynamic Fidelity Enhancer). This works by analysing the incoming signal and then tailoring the speaker's response to the chosen listening level.

All of this is governed via Cabasse's StreamControl app along with access to streaming services including Deezer, Napster, Qobuz, Spotify and Tidal, plus the user's own music, whether held on network storage or USB drives plugged into the speaker system.

The speakers include Wi-Fi and Ethernet networking, Bluetooth, and optical/coaxial inputs, and depending on which input is chosen can handle audio at up to DXD-level LPCM and DSD128. Meanwhile, analogue inputs are also provided on RCAs and balanced XLRs, with a stereo pair on each speaker – sources connected this way to one speaker will be shared to the other via the network connection.

It's even possible to set up multiple speakers or sets of speakers to create a multiroom system, perhaps using the Pelegrina pair in the main room and smaller Pearls in other 'zones'. The configuration in the app allows speakers to be added individually, and then designated as left or right, or added to different zones as required.



On The Ball

With all that going on, it's perhaps not surprising that I'd suggest these are speakers best treated to a full dealer installation. As **PM** and I discovered, it's all too easy to get lost in the configuration and frustrated by the lack of sound, or sound from only one speaker, or mono from both. Things aren't helped by a manual that's sketchy – to put it charitably – and it can take quite a lot of trial and error before you hit the 'Ah, that's how you do it' moment. There's another good reason for getting the dealer to do it all: the speakers stand almost 1.3m tall and weigh 45kg apiece, and while quite a lot of that mass is in the base, they're hardly the easiest shape to shift about.

Start playing music through these oddball speakers – I resisted calling them that until now – and it's clear they're hugely capable, with a sound of great substance and no shortage of detail, along with focused soundstaging. That said, they sound a bit polite when used in the 'Neutral Tone (HiFi Mode)' setting of their 'Audio Spectrum' adjustment, robbing the very atmospheric Anna Fedorova Shaping Chopin [Channel Classics CCS 43621] of some of its air and ambience, and giving the piano a slightly dry tone. Choosing the 'High Tone' gives a little more snap, as it does with rock music, albeit with some risk of brashness setting in. It's also worth noting

there are three bass-enhancing 'Low Tone' settings, the last somewhat hilariously labelled 'Outdoor Mode'.

Full 'n' Fast

Not that you'll be needing these settings for there's no shortage of bass from these speakers, as is clear in the growling opening of Ravel's 'La Valse' with the Sinfonia of London/John Wilson [Maurice Ravel: Orchestral Works, Chandos CHSA 5280; 96kHz/24-bit] and the dynamic swings of the piece. Even with the bombast of ELP's 'Karn Evil 9' [Brain Salad Surgery, BMG download; 96kHz/24bit] the Pelegrinas use their politeness to sound crisp and fast, without ever straying into too hard an edge. Instead, they deliver good insight into this full-on recording.



The convex 30cm 'HELD' low bass driver is coupled with a 1.85kW-rated Class D amplifier. RCA/XLR analogue, Toslink optical, wired/wireless Ethernet and USB-A inputs are included in the base

Ram It Home

Playing a new version of a test favourite, the Espen Eriksen Trio's 'In The Mountains', this time augmented with Andy Sheppard's sax on the new live album of the same name [Rune Grammofon RCD2227; 96kHz/24-bit], the Pearl Pelegrinas cast a fine, intimate soundstage. They bring out the precise, expressive playing of the trio, amidst which Sheppard's instrument sounds breathily authentic set against the tinkling, resonant piano, the rosy bowed bass and the subtle pattering drums.

But then, just when you think you've found the sweet spot – the usual beautifully recorded jazz so beloved of hi-fi demonstrators – the Pelegrinas crash out the ultra-dense all-star cover of Pink Floyd's 'Sheep' from the Animals Reimagined set [Cleopatra Records CLO2573], progressing from its tinkling opening to all-out onslaught featuring Rick Wakeman, Jan Akkerman and Carmine Appice, with Arthur Brown – yes, really! – on manic vocals. Far outside the French speakers' comfort zone? Not a bit of it. They're an absolute riot, start to finish.

Totally Impressive

It's a trick the loudspeakers also pull off with the dynamics of John Williams's 'Excerpts From Close Encounters', played by the Dallas Winds [At The Movies, Reference Recordings RR-142; DSD64]. Here the combination of ethereal woodwinds and grumbling orchestral basses creates a dramatic, atmospheric effect, and the lyrical passages punctuated with stabs of percussion in the build to the closing credits sequence develop with real conviction. Yes, there are times when the treble trades a slight hardness for complete detail, but the sound here is never any less than totally impressive.

And the same is apparent with Gregory Porter's One Night Only live set [Blue Note 7716496]. The London Studio Orchestra's intros can sound rather

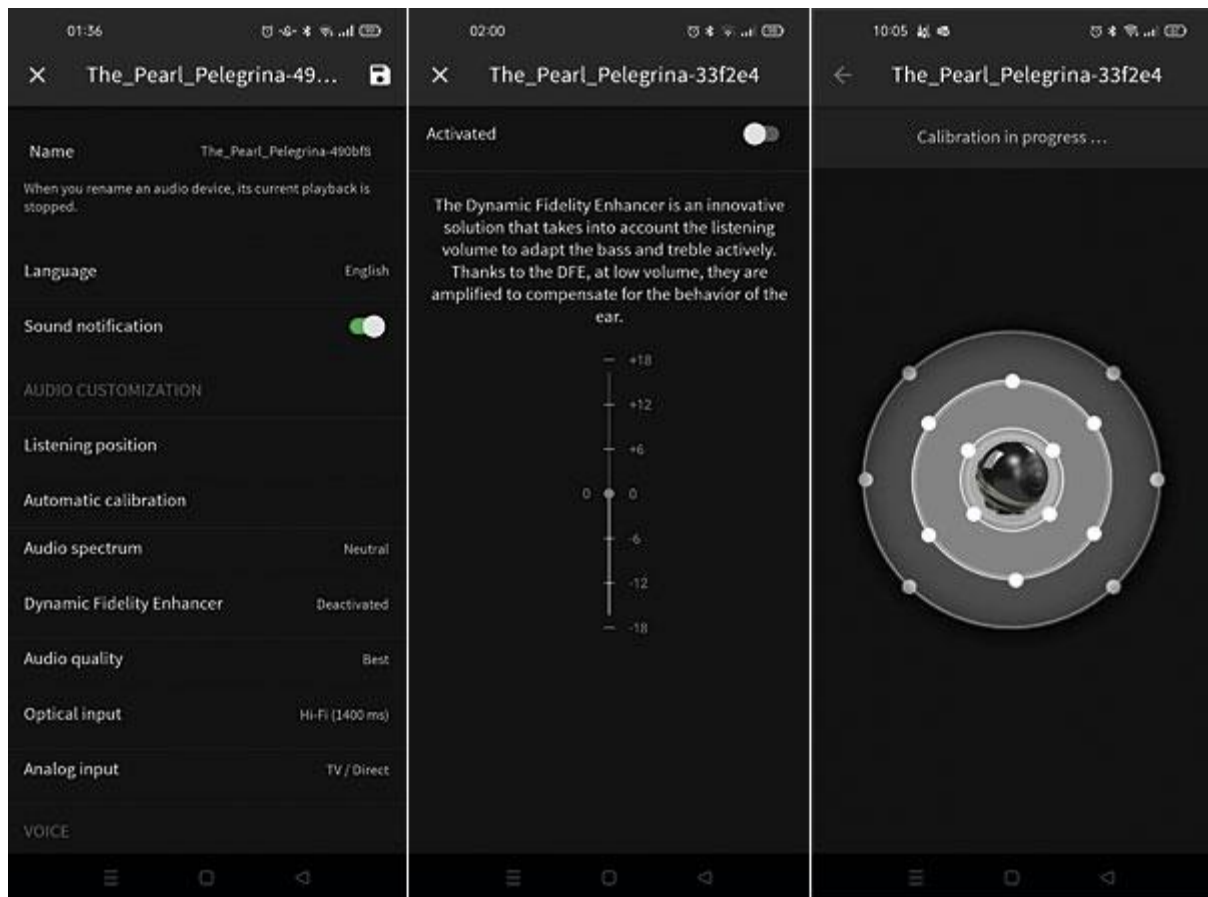
brash, but when the tracks settle into accompanied voice the sheen of the effect is entirely appropriate, and Porter's vocals have excellent character and warmth.

Hi-Fi News Verdict

These Pearl Pelegrinas both look and can sound impressive but a much better manual is needed for successful DIY setup, despite the very comprehensive app control. There are times when the speakers can veer from slightly hard-edged to near-anonymity, but they do so many things right, from their ability to go loud to the detail and impact they can deliver with the right music. But they're not without their foibles...

It's All In The App

Given the networked nature of these speakers, and their extensive DSP implementation, it's no surprise that the Cabasse StreamControl app, running on a smartphone – or even better a tablet, as there's quite a lot going on here – is at the heart of setting up and using the speakers. Not only does it allow the user to access all the streaming capability here, but it also initiates the speakers' room calibration, allows speakers to be grouped into stereo pairs (or more), and provides a wide range of 'on the fly' adjustments to the sound.



Yes, it could be more intuitive during the setup – Cabasse's support being more descriptive than assistive – but once you've got it all dialled in, both speakers working and correctly assigned, the streaming interface is smooth and logical, whether playing music from online sources or files from local storage.

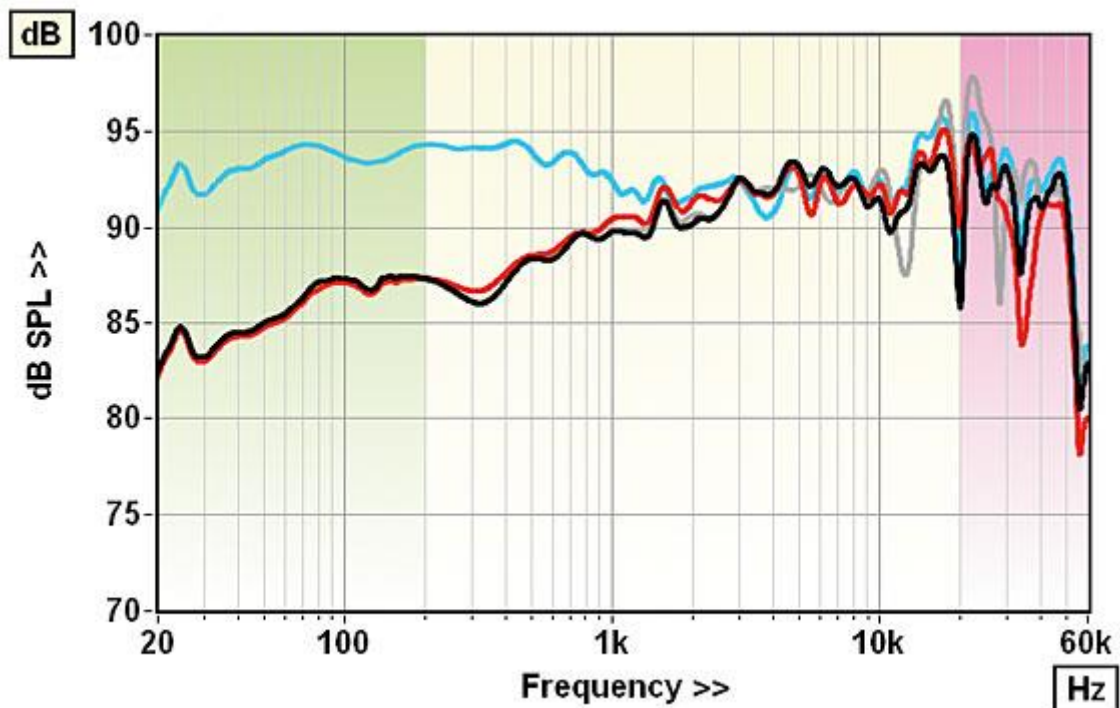
Cabasse Pearl Pelegrina Loudspeaker Lab Report

With its line/digital inputs and direct-coupled Class D amplifiers, the Pearl Pelegrina has no meaningful sensitivity – 'impedance' is the 47kohm load seen by a preamp driving either of the RCA or XLR line inputs. The forward responses plotted here [see Graph 1] are referenced to 90dB SPL/1kHz by way of comparison with modern passives in this class. Also for the purposes of testing, the grilles were removed, Cabasse's DFE (Dynamic Fidelity Enhancer) was switched off and latency configured at the absolute

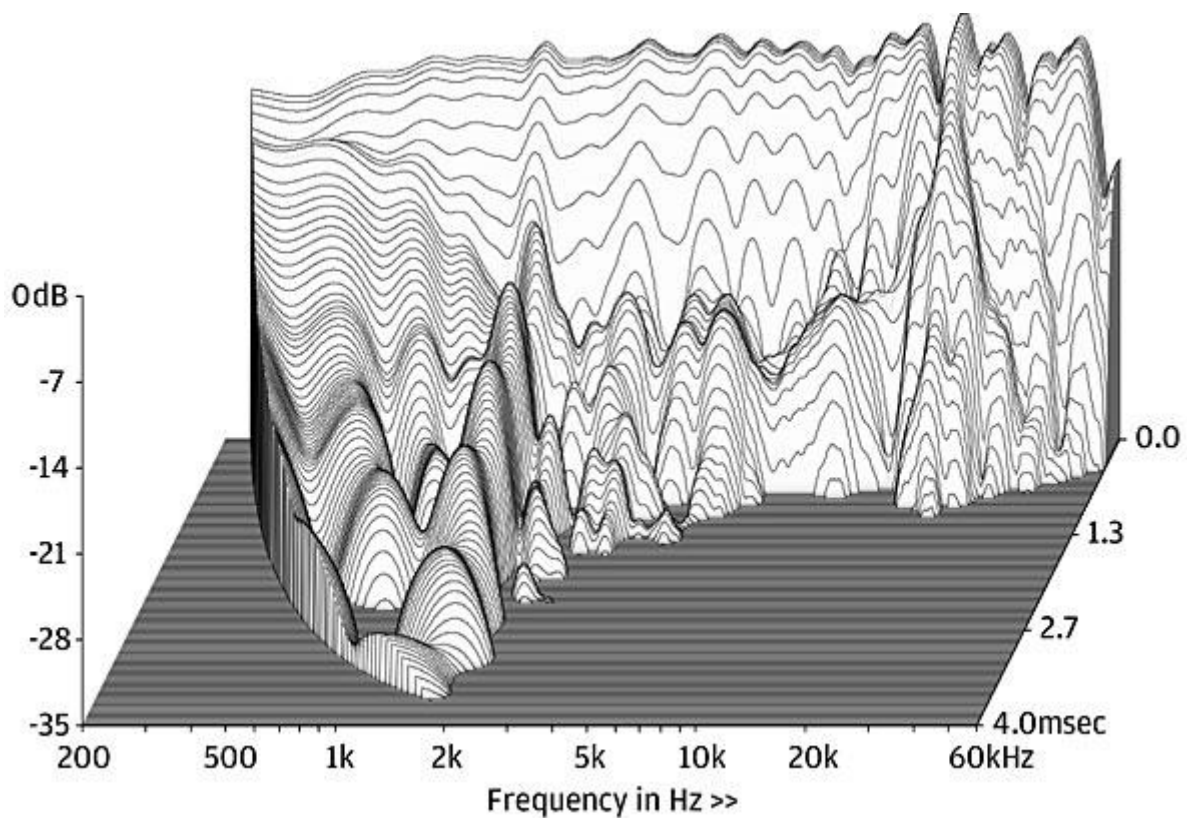
minimum, although there is still a 100msec delay through the analogue/digital/analogue signal chain within the Pearl Pelegrina.

In factory default mode, the response is presence/treble forward with a declining bass/mid that shelves down ~3dB from 1kHz-100Hz [black/red traces]. Once calibrated however, the Pearl Pelegrina's forward response [blue trace] is flat to within a creditable ± 2.1 dB (re. 200Hz-10kHz) while the dome tweeter reaches out to 35kHz (-6dB re. 10kHz). Also, the impact of the protective metal grille [grey trace] is – surprisingly – ameliorative up to ~10kHz above which cancellation/reinforcement notches at 12kHz, 18kHz, 20kHz, 22kHz and 28kHz cause the response uniformity to drop from circa ± 3.5 dB to ± 5.0 dB.

The rear 300mm 'HELD' active subwoofer is digitally filtered with a steep ~36dB/octave roll-off above 165Hz and a useful bandwidth extending down to 18Hz (-6dB). Calculating the diffraction-corrected bass extension of a spherical loudspeaker is not straightforward but this is still estimated at <20Hz – a 'deeply' impressive result! The CSD waterfall [Graph 2] reveals a resonance, with harmonics, associated with a 'blip' in response at 1.5kHz, but otherwise the Pearl Pelegrina is largely free of higher frequency modes. As for conventional THD, an increase in 3rd harmonic boosts bass distortion to ~0.3% but through its midband the Pearl Pelegrina boasts one of the lowest THD figures we've measured – just 0.03% (all re. 90dBA/1m). **PM**



Response inc. nearfield subwoofer [green], freefield corrected to 1m at 2.83V [yellow], ultrasonic [pink]. Left, black; right, red; w/grille, grey; cal, blue



One obvious mode at 1.5kHz, with harmonics, detracts from what is otherwise a clean, swift decay

Pair matching/Resp. error (200Hz–20kHz)	4.1dB/ ± 3.9 dB/ ± 4.2 dB
LF/HF extension (–6dB ref 200Hz/10kHz)	<20Hz / 35.6kHz/33.5kHz
THD 100Hz/1kHz/10kHz (for 90dB SPL/1m)	0.25% / 0.03% / 0.6%
Dimensions (HWD) / Weight (each)	1280x480x480mm / 45kg
Price	£22,599