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Rhapsody in Bluetooth

Great things are expected of Dynaudio's smallest Xeo to date. **David Vivian** finds out if the Xeo 2 can live up to the promise

A script some like to follow contends that premium loudspeaker makers have been caught napping while the rest of the world wakes up to active, wireless, single-box, multi-room loveliness, thus letting Sonos, Bose, Bluesound *et al* steal a march on the road towards a wireless world. But as long ago as 2012, Dynaudio, was out of the blocks and running with its first-generation range of Xeo active, wireless speakers. It proved beyond any doubt that cable-free convenience was compatible with true high fidelity and that buying into

The weighty bass is key to the Xeo 2's sound and what makes it special

less discriminating sound served up by too many one-box solutions was optional rather than obligatory. Now a second-gen Xeo lineup with a plus-one called the Xeo 2 has arrived and looks to be every inch the kind of do-everything, put-anywhere wireless speaker that shows us what could, should and will be. An object lesson in studied understatement, neat hardly covers it. Optimally, each Xeo 2 can be teamed with supports made by Dynaudio: a stubby stand to lift it clear of table or desktop, or a wall bracket that allows 90° of lateral articulation. And unlike previous Xeo models, it doesn't require additional external hardware to work wirelessly, thanks to Bluetooth, and the control speaker communicates with its partner over a built-in closed A-to-B wireless link. If you want to stream to multiple pairs in different rooms, you'll need to buy its Connect (£295) interface box or Xeo Hub (£200). The control speaker has RCA line-in, a Toslink optical input for playing

your hi-res recordings (accepting up to 24/192, but outputting at a maximum of 24/96) and a 3.5mm aux socket.

Setup is simple, if a little fiddly, as the bulk of the sockets and tiny click switches are tucked up on the ceiling of an open cubby at the back of the control speaker. These include a switch to 'hand' the speaker left or right, with a corresponding one in the rear cubby of the other speaker. It's a useful feature for keeping the master close to sundry source components should you want to make any wired connections. Another pair of switches set the three-way DSP-implemented EQ, allowing the freedom to place the Xeo 2s in free space, in a corner or close to a side wall. Each speaker also sports a USB slot to facilitate firmware updates.

Dynaudio calls the Xeo 2 its entry-level high-end speaker and, ergo, the world's first high-end wireless speaker, too. All of which seems to square with the price. It's a true active design with a generous 65W (claimed) of pulse width modulated Class D amplification assigned to each driver and electronic crossovers to divide up the workload. Dynaudio calls it Pure Path Amplification, which just means that the analogue signals fed to the RCA and 3.5mm inputs are immediately digitised and, along with the Toslink and Bluetooth digital inputs, stay that way until the last possible moment. But not until they've been treated to something of a digital neck rub by the active DSP filters, time coherent phase linear FIR filters and Adaptive Bass tech that optimises bass output against amplifier load to give deeper and more even lower frequencies than you might expect from such a bijou box – flat down to a remarkable 40Hz according to Dynaudio.

Doing the business, and sitting neatly in the Xeo 2's extruded

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DETAILS

PRODUCT
Dynaudio Xeo 2

ORIGIN
Denmark

TYPE
2-way active wireless standmount loudspeaker

WEIGHT
4kg

DIMENSIONS (WxHxD)
173 x 255 x 154mm

FEATURES

- 27mm soft-dome tweeter
- 140mm mid/bass driver
- Quoted power output: 65W Class D amp per driver
- AptX Bluetooth; wi-fi via add-on Hub & Connect units

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aluminium baffle, are a 27mm soft dome tweeter and a 140mm magnesium-silicate polymer (MSP) mid-bass unit. Both are made inhouse by Dynaudio. No MDF was harmed in the making of the bass reflex cabinets. Instead, they're formed from an acoustically inert composite moulding, the alloy baffle adding extra rigidity. Current colour choices run to black or white, both with a satin finish, but at CES in Las Vegas, the Xeo 2's debut was celebrated with a whole paintbox of colours, of which red, orange and yellow were merely the least subtle. It seems very likely some of these will make it into production.

Sound quality

With the DSP EQ switches set to open space, I place the Xeo 2 on my 24in Slate Audio stands, slightly toed-in and pulled clear of corners and walls. My iPad makes the only truly wireless connection via Bluetooth. A Roksan Caspian M2 (HFC 356) CD player bags the RCA sockets using extra-long runs of Townshend F1 Fractal interconnect while a Questyle QP1R hi-res portable (HFC 409) and iPod Classic fill the Toslink and 3.5mm aux roles respectively.

Expectations are naturally tweaked when terms such as 'world first' and 'high-end' are trumpeted by marketing folk, especially those as presumably sober-minded as Dynaudio's. It's only right to be a

Wireless speakers, it would seem, have finally come of age



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Q&A

Roland Hoffmann

Senior manager, Dynaudio Academy



DV: The Xeo 2's Bluetooth performance ranks among the best we've heard at any price. What's the secret?

RH: Many products have the Bluetooth function onboard mainly to make the customer happy when they're looking at the feature list, while no time was spent on how it actually performs with Bluetooth. Some other products try to mask or soften the Bluetooth sound in order to make up for the lack of resolution. But spending time and real R&D effort on the actual Bluetooth performance is a different thing. Our engineers were never happy with Bluetooth performance and we omitted it from the first Xeo generation, while continuing to work on it internally. It all comes down to DSP power (the Xeo 2 has a very capable chip) and understanding how digital signal processing influences the actual audio performance. We also took care of the quality and specific position of the Bluetooth antenna. Such small things matter.

Bass is equally impressive. Again, how have you managed to extract a palpable 40Hz from such a compact box?

Every traditional compact speaker, especially with such a small cabinet size, has a very limited bass performance so the whole design has to ensure an external amplifier never overpowers the speaker. These limitations usually affect all listening levels. In a digital active speaker with such a high performance DSP as in our Xeo 2, we can really extend the physical performance limits. We call it Adaptive Bass and it constantly monitors the low frequencies in the music signal in relation to the listening level. Imagine it as a floating point frequency extension, which allows an incredibly deep bass performance on all listening levels bar the very loudest. An intelligent speaker, no less!

IN SIGHT



- 1 Mode LEDs
- 2 27mm soft-dome tweeter
- 3 RCA & mini-jack analogue & optical digital ins
- 4 140mm mid/bass driver

HOW IT COMPARES

At £600, KEF's bulkier X300A (HFC 386) active wireless bookshelf speakers are a serious rival and come with AirPlay and DLNA connectivity built in. Physical connections are limited to one USB and a 3.5mm mini-jack socket. Each speaker boasts a 24/96-capable DAC. Sound quality is similar to the passive R100 (HFC 408), which means very detailed, spacious and easy on the ear, even at volume levels that eclipse the Dynaudio's, but a little lacking in the musical energy and enthusiasm department, in which the Xeo 2 excels. If you're on a tighter budget, Q Acoustics' excellent BT3 (HFC 379) active Bluetooth is certainly worth an audition, at £280.

little sceptical. I can offer some advice. Remember to tense your jaw muscles if you decide to audition the Xeo 2 because if you don't when you hear it for the first time, a bug might fly into your open mouth. That good? Yeah, that good.

The Xeo 2's best qualities are both remarkable and remarkably consistent across the inputs. Bluetooth is easily good enough to call 'hi-fi', though well-recorded hi-res from the Questyle does 'refresh the parts...' as you'd hope. Presentation is gorgeously spacious with crisp imaging and an impressive sense of scale, power, tonal richness and rhythmic surety. In fact, the weighty bass performance is key to the Xeo 2's sound and what makes it a little special. In its smooth and apparently effortless downward reach, it's as if it belongs to an altogether larger system and provides a top-to-bottom balance you'd never experience with a passive standmount speaker of similar size.

But while adaptive bass tech is clever stuff, it isn't quite the panacea it might initially seem. Although the lower frequencies are full-bodied and extended, they have a mildly samey, occasionally over-ripe quality that doesn't always ring true. Listening to ATC's passive SCM7 (HFC 384) confirms that while the Dynaudio has almost uncanny weight and extension and remains ever agile and tuneful, it can't get close to matching the ATC's attack, precise articulation and resolution of timbral texture.

Perhaps you can't have everything. For a speaker system competing in the wireless sector, though, the Xeo 2 is heady stuff, that pleasingly controlled lower-end heft underpinning an almost magically tangible midrange

and sweet, airy treble. It all hangs together brilliantly and, because of ample bandwidth and surefooted timing, with great even-handedness and musicality. I play the Pat Metheny Group's *Speaking Of Now* album along with newer outings from the *Whiplash* soundtrack and Go-Go Penguin's *Man Made Object* CD and the same thing strikes me time and again. It all sounds as if it's been remastered by someone with a cupboard full of Grammys. If the Xeo's tech is manipulative, it's in a good way. The full-bodied balance and unfussy transparency, in particular, are an absolute joy.

Conclusion

With the Xeo 2, Dynaudio has raised the bar for compact wireless speaker systems to a level that would barely have seemed possible a year or so ago. Its Bluetooth performance is outstanding, but best of all it allows anyone for a reasonable outlay to enjoy sound quality that was once the preserve of audiophiles. High fidelity is the winner ●

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OUR VERDICT

SOUND QUALITY ★★★★★	LIKE: Speed and transparency; Bluetooth performance
VALUE FOR MONEY ★★★★★	DISLIKE: Bass can lack timbral finesse
BUILD QUALITY ★★★★★	WE SAY: Top-drawer sonics meet wireless convenience in a smart, small yet affordable package
FEATURES ★★★★★	

OVERALL

