DYNAUDIO

Confidence i

Product information | Technical specifications







The reference

Confidence i makes you feel. It’s as simple as that.

It doesn’t matter how rational, or serious, or analytical you are. Listen to them and that deep, primeval, emotional part of your brain will take the wheel. There’s nothing you can do about it. And why would you want to? It’s how music should be heard: with all the emotion the performers put into it, nothing lost, nothing added.

The range has been designed from top to bottom as the reference for high-end home audio. It’s a speaker that leaves you only one way to get closer to the performance: be at the performance.

Confidence has been the benchmark – and an object of audio lust – since 2018. But laurels aren't for resting on; limits are meant to be pushed. Eight years of dedicated R&D has shown that it really is possible to improve on perfection – and that you really can cause goosebumps to rise on the arms of a seasoned acoustic engineer.

In pursuit of perfect

There's always more to discover in music, and to uncover that 'more', accuracy is non-negotiable. The new Esotar 3i tweeter is the best high-frequency driver we've made so far: built for nuance, precision and power. And enchantment. That's thanks to improvements in the magnet assembly and a new, carefully composed recipe for the ferrofluid in the motor system.

It's still the sweet, easy-to-listen-to Esotar sound you love, but now it delivers even more detail; the kind that reveals even more of your music – no matter how well you know it.

More to hear

A room can dramatically influence a speaker's performance – which is why Confidence doesn't let it. Dynaudio Directivity Control (DDC) appeared in 1999's Evidence speakers and 2001's Confidence C2 and C4, then received an overhaul in the 2018 Confidence. The system is designed to beam sound directly to you, in your chair, instead of letting it bounce off the floor and ceiling. That means you hear more of what your speaker is playing, and less of what your room tries to add to the performance.

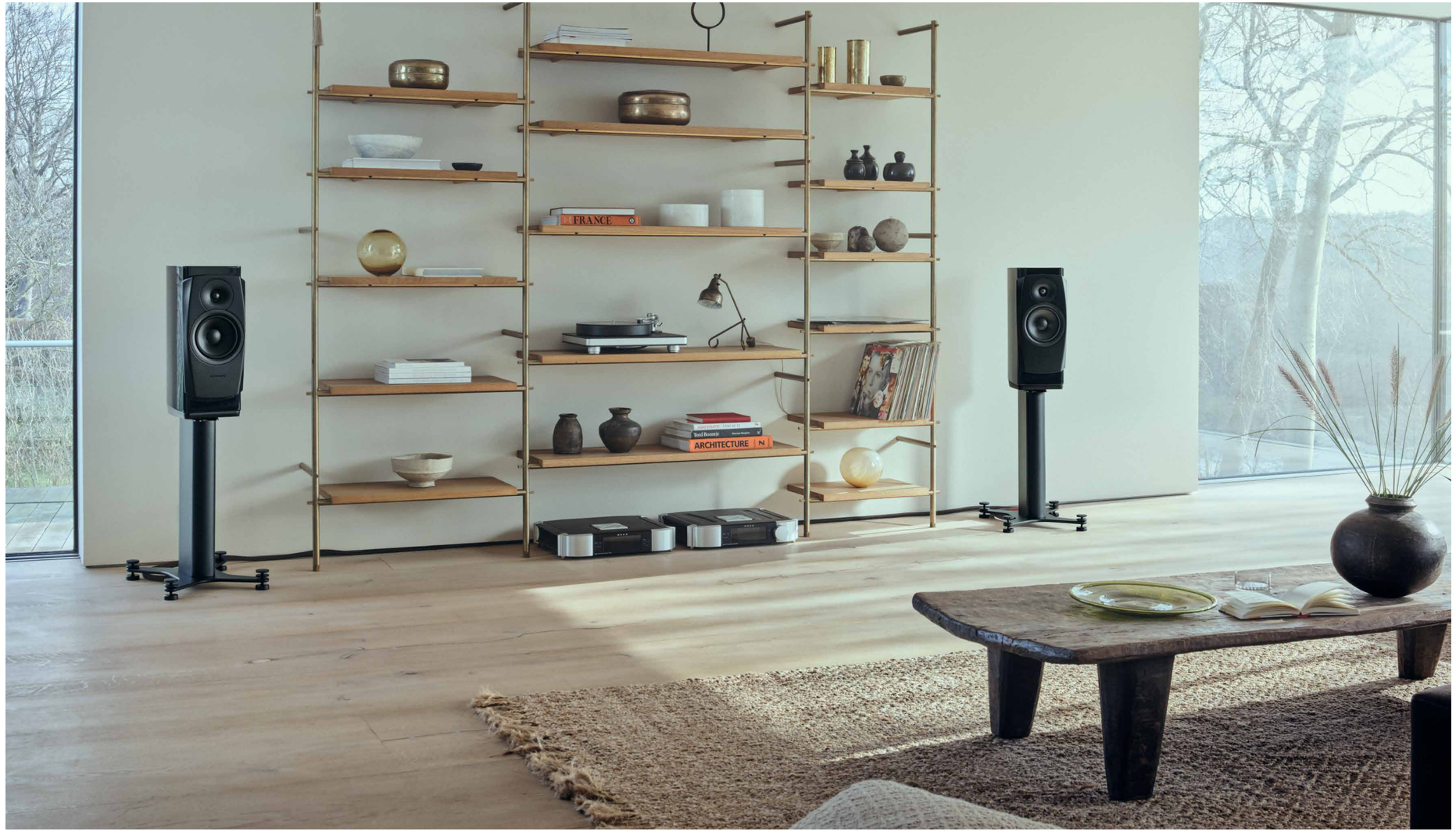
DDC has now reached version 3.0. The new DDC Lens on Confidence 30i and Confidence 50i has been redesigned for even better horizontal dispersion and a wider, deeper soundstage. Meanwhile, Confidence 20i has a brand-new DDC Lens to really help its Esotar 3i tweeter sing.

Nothing in the way

We strive for simplicity. Confidence i's new crossover has been stripped down and optimised for directivity, an even power response and improved dynamics. We worked with our friends at Duelund to upgrade the capacitors, and worked with ourselves to invent an entirely new component – the patent-pending Dynaudio UltraPrecision Array resistor.

It lets us create a bespoke, almost infinitely accurate resistor with tolerances more than ten times tighter than off-the-shelf components. You'll hear the result immediately. It's the kind of clarity and dynamics that keep you listening long after you forget the speakers are even there.





Confidence 20i

Confidence 20i combines the Esotar 3i tweeter, Dynaudio Directivity Control (DDC 3.0) and an upgraded crossover in a two-way passive design. And it's been created to give you goosebumps.

'Compact', in this case, refers only to size. Confidence 20i has been designed specifically to distil the power and presence of the Confidence i series into a format that fits comfortably in a smaller room, without shrinking the performance.

Confidence 20i compresses an almost unreasonable amount of engineering into a very small space. The Esotar 3i neodymium tweeter delivers all the sweet accuracy you'd expect, while its new DDC Lens expands the soundstage and ensures that more of the performance is aimed at you, not the rest of your room.

The 18cm NeoTec MSP woofer uses a rigid glass-fibre voice-coil former and a lightweight aluminium voice-coil. Together, they keep the driver light, stiff and well-damped. You'll hear that in your music as powerful, controlled bass and tight, refined midrange.

The bass port works with the stand as part of a single, engineered system. It fires downwards, then sideways – meaning Confidence 20i is far more forgiving when it comes to placement. Even close to a wall. Together, the woofer and port deliver the kind of punch you'd expect from a much larger loudspeaker.

Confidence 20i's deceptively simple crossover integrates the tweeter and woofer with the kind of precision you'll hear immediately. In fact, we challenge you to try to hear where one driver ends and the other begins. It also gives Confidence 20i consistent performance in different rooms – whether that's the demo room or your living room.

How does all that engineering sound? Exactly like your music.

Confidence 30i

Confidence 30i is a passive three-way design that uses an Esotar 3i tweeter, Dynaudio Directivity Control (DDC 3.0) with its dedicated DDC Lens, and a simpler re-engineered crossover. It's the sports car of the family.

Perfect balance is a hard thing to achieve – particularly for loudspeaker designers. Confidence 30i achieves it in style. It's a magnetic combination of poise, proportion and performance, with serious sonic scale. Those things don't meet very often.

Confidence 30i uses twin 18cm NeoTec MSP (Magnesium Silicate Polymer) woofers alongside a dedicated 15cm MSP midrange driver. The mid unit uses our innovative Horizon surround, which follows the cone's shape right to the edge of the driver and sits flush with the baffle.

These three drivers work with the tweeter and the acoustically contoured baffle to form the core of DDC 3.0. The system reduces reflections and colouration from floors and ceilings, widens the horizontal field and directs more of the performance towards you, where it belongs. The revelations you hear in all that added depth will make you smile.

Much of Confidence 30i's scale comes from its clever use of woofers and a down-firing bass port. Using two drivers to deliver low frequencies from separate positions means bass is more evenly spread in the room. The result is more precision, with greater impact. And more weight.

The down-firing bass port uses the speaker's heavy foot as part of its acoustic architecture, meaning it can be placed on any surface and in any position without affecting its performance.



Engineered to entertain ▲
Each Confidence i model has its own DDC Lens, which guides sound straight to you

Confidence 30i's sleek, well-proportioned cabinet is as much an engineering choice as an aesthetic one. It's been designed to keep itself out of the performance. No hard edges; a gracefully curved back that won't cause unwanted diffraction; a baffle that looks like that because we wanted it to sound like that. And the driver arrangement: striking, but based on almost 50 years of Dynaudio R&D. It looks poised because it is poised.

Confidence 50i

Confidence 50i is the largest loudspeaker in the range. It's a passive three-way floorstanding speaker with the new Esotar 3i tweeter, a ground-up-revamped and upgraded crossover, and DDC 3.0 with the dedicated DDC Lens.

Confidence 50i delivers a feeling of scale that larger spaces fall flat without. Its headroom and presence fill the room without drama or strain, while letting all the detail and emotion in your music hit you exactly as it's supposed to.

Each of the two 18cm MSP (Magnesium Silicate Polymer) woofers is paired with its own 15cm MSP midrange driver in a symmetrical arrangement that flanks the tweeter. That's a large moving surface area – which moves serious amounts of air.

But it's all under control. Using four woofers across the pair gives you a tight, accurate sound thanks to their smaller size (which means more finesse). The midrange – crucial to extracting even more meaning from a recording – is taken care of, too. It's crisp and detailed, delivering intensity and subtlety without shouting.

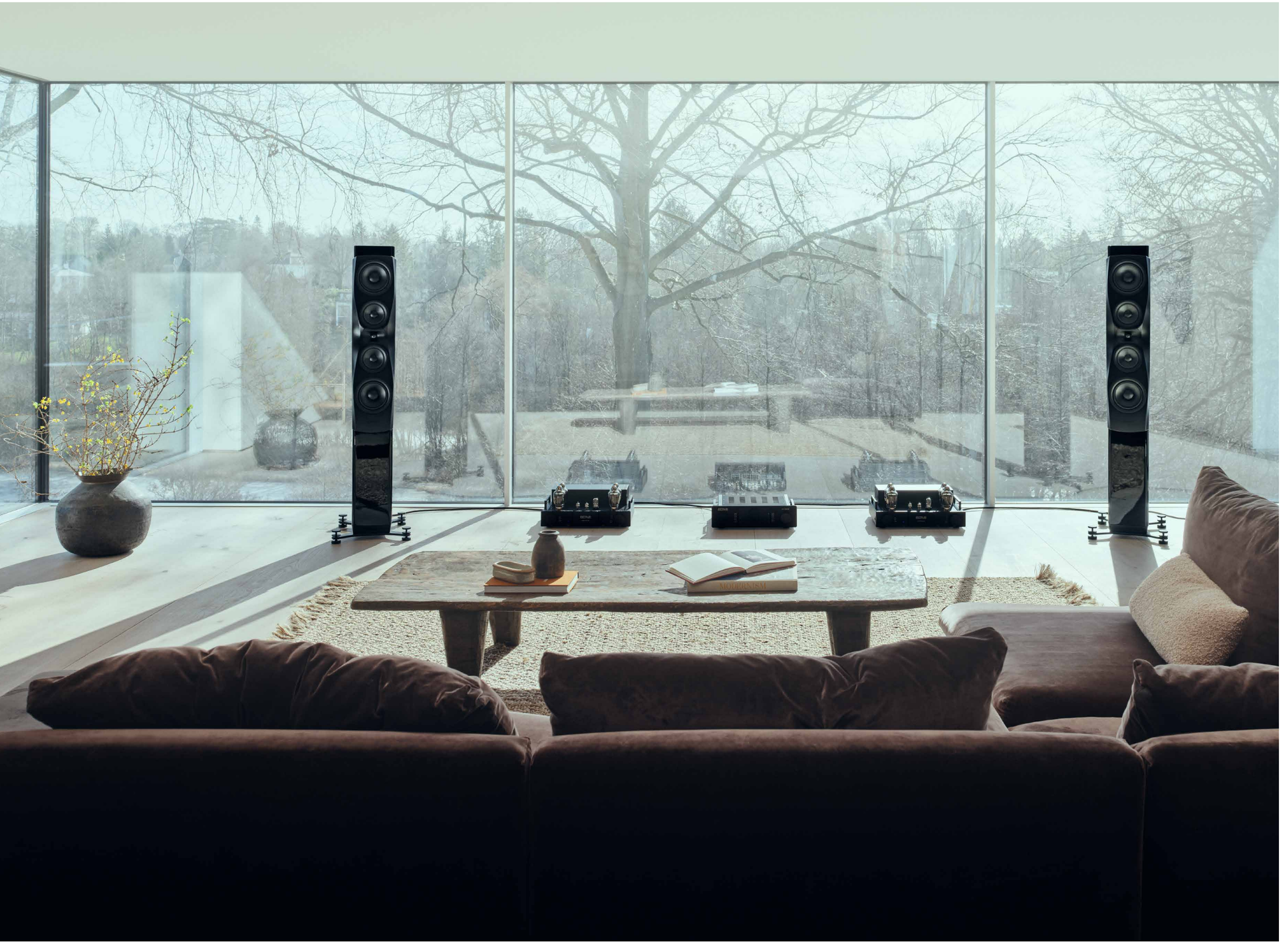
The Esotar 3i tweeter is in charge of fine detail. It delivers precise, sweet high frequencies without losing composure due to heat over long listening sessions. And you'll want to have long listening sessions…

Our team has made important improvements to airflow, thermal stability, damping and magnet force, which you'll hear as near-seamless integration with the midrange drivers.

Confidence 50i's DDC 3.0 architecture makes all that power and scale usable in a real room: the baffle and the DDC Lens surrounding the tweeter are shaped to direct more sound towards you, in the listening chair, and minimise colouration from the ceiling and floor. It also gives a wider sweet spot, so no one else on the sofa needs to feel left out.

The ingenious down-firing bass port, meanwhile, is integrated with the solid steel base-plate. Since it's always in the same

Product information



position, it effectively replaces the floor. This never-changing foundation means low-frequency performance is consistent wherever you put your Confidence 50i system.

Despite everything it can do, we've designed Confidence 50i to disappear once you press Play. Its elegant curved cabinet, unchanged from the previous Confidence 50, seems to vanish behind the baffle – a shape that's the result of a lengthy back-and-forth between our product designers and acoustic engineers. They needed a way to minimise cabinet effects on sound, while keeping it beautiful. Here it is.

Confidence 50i sounds the way it does because it looks the way it does (and vice versa) – but your speakers shouldn't be the main event. Your music is. Which is why Confidence 50i has nothing more to prove.

Behind the music

Confidence i is packed with the most advanced audio technology we could lay our hands on, improve – or invent ourselves.

It's our reference speaker. And it isn't just one thing that makes it so special: it's *everything* – whether that's custom precision components, ingenious crossover design, uncompromising cabinet construction, innovative materials or its pristine finish.

Esotar 3i

The Esotar name has been synonymous with sweet, accurate, airy, precise high frequencies since the 1980s. And yet we still keep finding ways for listeners to add superlatives.

Esotar 3i builds on our Esotar 3 reference tweeter by reintroducing ferrofluid inside the magnet system. Eight years of extensive research and development have resulted in a new recipe that acts the same, irrespective of temperature. That means it doesn't change the tweeter's character at different volume levels or over long listening sessions, when things are getting hotter.

This tweeter has even narrower tolerances and improved damping – which, for your ears, means more accuracy in the very highest frequencies regardless of volume.

But we've left some important things alone: the precision-coated soft-dome diaphragm, the neodymium magnet, the large rear chamber and our philosophy of taking care of your ears by taking care of smoothness.

That smoothness comes in part from Esotar 3i's lower resonant frequency. This gives a shallower overlap between it and the midrange driver, which you'll hear as better integration between treble and mids – or, to put it in musical terms – whatever you're listening to won't sound as if it's been divided into distinct 'double bass', 'trumpet', 'triangle' areas. You get the whole picture. It's like listening in enhanced colour.

Hexis

Hexis is a small, solid inner dome that sits just behind Esotar 3i's soft-dome diaphragm. It gently shapes air movement behind the diaphragm and into the rear chamber, reducing unwanted resonances and smoothing out the frequency response.

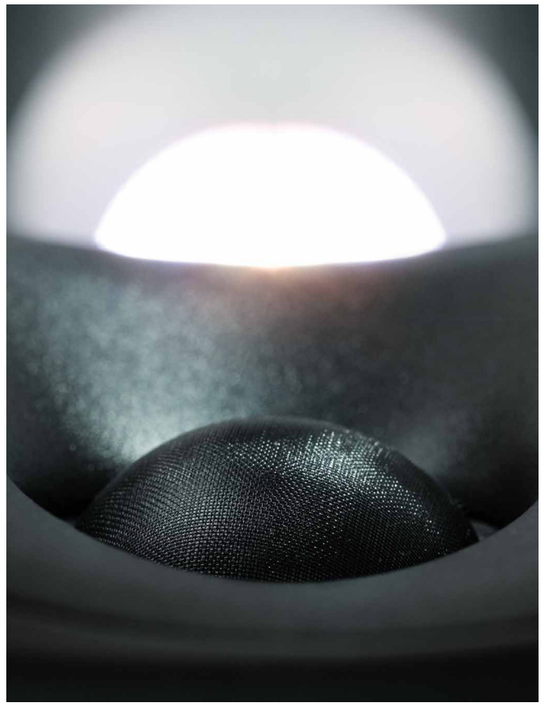
It also helps to stop driver movement the moment the music signal stops. Timing improves, imaging improves, detail improves… and so does the way your music sounds.

It made its debut in the then-new Esotar 3 tweeter, and has now made its way across our entire speaker range – including our professional studio reference monitors.









You might not notice it's there (except under the right light), but you'll hear its effect. High frequencies are sweeter and more precise – which means your ears won't get tired, which means you can listen for longer. Which means more music.

DDC 3.0

If you're sitting in a larger room, you don't want the speakers' sound bouncing off anything before it reaches your ears. The room itself would colour the performance – so what you heard wouldn't be what the drivers were producing.

Dynaudio Directivity Control is an engineering platform in which almost every part – right down to the screws – acts to form a sound 'beam' aimed at the listening position. It reduces reflections from above and below by up to 75 per cent.

Shaping those sound waves effectively removes the need for complicated, expensive (and potentially ugly) room treatment.

Previous Confidence speakers used dual tweeters and an incredibly complex crossover to help achieve this. DDC 3.0 simplifies the engineering and helps the performance gain complexity. One tweeter per speaker with its companion DDC Lens. The carefully moulded composite front baffle. Mirrored driver arrays. It all combines to let you hear more of the artist, and less of what your room wants to add to the performance.

DDC Lens

The DDC Lens is an intricate, precision-formed aluminium waveguide that tightens the vertical audio image while maintaining wide horizontal dispersion.

It works in conjunction with the Esotar 3i and the speakers' midrange drivers and woofers to greatly reduce unwanted reflections from the floor and ceiling, and to focus the stereo image on the listening position. The performance becomes almost unnervingly real.

But, of course, our engineers are never satisfied with merely 'excellent'. During development, the DDC Lens was computer-simulated, modelled and 3D printed in a huge variety of designs. It was slotted into prototype speakers, hoisted 6m into the air in our Jupiter measuring facility, and painstakingly analysed. Then it was listened to, with real ears and real music, before being refined again. And again. Even a tenth of a millimetre makes a difference to the sound.

The DDC Lens gives the performance genuine depth – so when a timpani drum is at the back of the stage, it stays there, even when a performance reaches its complex climax. The concert hall's natural character is given scale and weight.

All from one machined component. It's a shape born of necessity. And, as so often in engineering, the correct solution is the one that makes you forget it even exists.

Horizon midrange driver

The DDC platform has become so highly developed that even speaker surrounds play a part.

Confidence i's MSP midrange unit has a radical surround design that follows the cone's shape right to the edge of the driver. This reduces the surround's first resonant mode to effectively enlarge the playing surface and improve performance. It also sits flush with the baffle to reduce diffraction from the diaphragm and the adjacent tweeter.

Behind the scenes, the basket has been given a lightweight organic design – one that's resulted from extensive topology-optimisation simulations. It allows air to move more freely, maintains its stability and rigidity, and reduces weight without sacrificing performance.

Much of what makes music sound like music lives in the midrange frequencies. They're delicate, and important, and emotive, which is why we've become slightly obsessive about getting as much out of them as we can.

Compex baffle

Confidence i's baffle is made from an advanced composite called Compex. It's very light, extremely strong, and damped to absorb unwanted resonances. It's also extremely stable over time. Lift one up and tap it, and you'll hear that it's acoustically very dead. Exactly as it should be.

The drivers are integrated into the baffle with special gaskets. A rear mounting plate contains the screws – which means the woofers are tightly coupled, and the tweeter and midrange drivers are decoupled as much as possible to avoid vibration.

The Compex baffle has been developed, simulated and precision-designed to work as part of the DDC Lens – which, along with the drivers and crossover, meshes perfectly with the DDC platform.

In practice, that means no rattling, no unwanted resonances or strange diffraction effects. Everything about the Compex baffle has been engineered to make it acoustically invisible – so your music can take centre stage.

NeoTec woofers

'One size fits all' often ends up meaning 'no size fits anything'. Which is why each Confidence i model has its own bespoke MSP woofers.

All of them use powerful neodymium magnets for maximum dynamic range without compromising finesse. All their voice-coil formers use up to three layers of glass-fibre for optimum stiffness. And they all benefit from the same developments in airflow and venting (particularly in the bottom of the yoke).

But we've used different materials for the actual voice-coil wire, depending on the speaker model and what the driver will be playing. It means the speaker's tuning is more complete, and each driver's performance is completely optimised for its purpose.

Confidence 20i uses an aluminium voice-coil in its woofer, while Confidence 30i and 50i use heavier copper. Copper gives the bigger drivers slightly more moving mass to align with the cabinet tuning – which means more sonic punch for you. The diaphragms in the floorstanders' woofers are also slightly thicker and stiffer, because they're used purely as bass units. The Horizon midrange driver handles what happens higher up the frequency range.

The magnets themselves are machined with extravagant precision to shape their flux around the voice-coil – which keeps a tighter leash on movement in the air gap. It's an elegant solution that combines fine-tuning with considerable power.

Tight, controlled, punchy low frequencies are non-negotiable for us. Just as they are for you. Giving Confidence i tailor-made bass units means you get exactly what you want (and maybe even rather more than you expect).

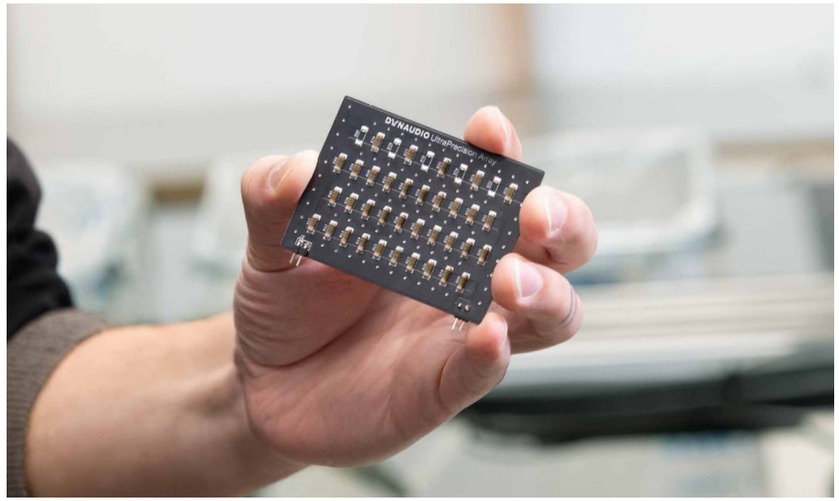
Magnesium Silicate Polymer

We've been making our woofers and midrange drivers from Magnesium Silicate Polymer since the very beginning. It's a material we developed ourselves – simply because nothing else on the market could do the job to our standards.



The exact recipe is a secret, and has been refined over the decades, but the principle remains the same. It provides exactly the right combination of lightness, stiffness and damping to reproduce sound as accurately as possible, at low and high volume levels, for long periods.

Despite what you might think from its appearance, a Dynaudio cone is made of a single piece of vacuum-formed MSP. The ribs you can see provide glueing surfaces for the voice-coil on the back. This gives the coil better alignment – crucial when it has to move in the improbably tight space in the magnet gap – and makes the whole assembly more rigid. The result for the speaker is better high-frequency response and power handling. The result for your ears is absolute clarity, with plenty of body.



◀ ***Innovations inside***
The Dynaudio UPA resistor lets us fine-tune the speaker's performance to an astonishing degree



Bespoke crossovers ▶
Each Confidence i model has its own unique crossover design

When we find something better than MSP, we'll use it. We aren't loyal to polymers. But this one has made beautiful sound for half a century: it's the point at which an electrical signal finally becomes music again.

Dynaudio UltraPrecision Array resistor

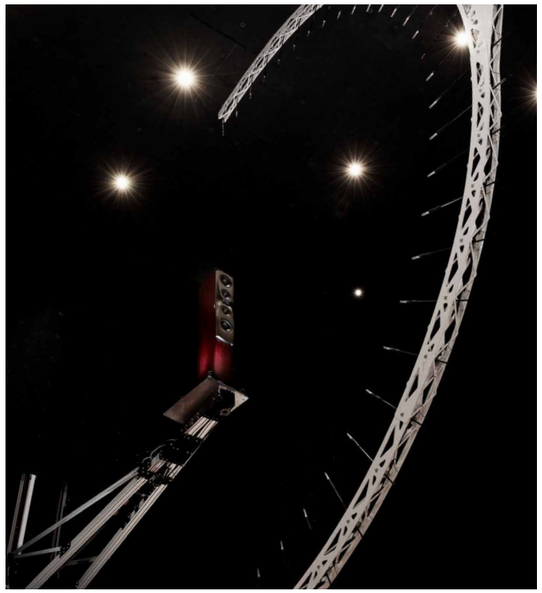
Resistors for crossover circuits come in set values off the shelf – and that means engineers everywhere are forever constrained by the ones that are available. We decided there was a better way to do it.

The patent-pending Dynaudio UltraPrecision Array (UPA) uses tiny precision resistors in concert to create the exact value our engineers want. And 'exact' is an understatement. Normal, off-the-shelf resistors have a tolerance of up to 5 per cent. The UPA maxes out at 0.2 per cent. And it's consistent.

The UPA's construction means it has much lower inductance than conventional power resistors – and therefore less influence on the signal passing through it. It conveys transients far more immediately, so a plucked string, the start to a vocal line or the crack of a snare drum are preserved. Cleaner starts, clearer stops, and more of the moments the artists loved in the studio.

The crossover

We always start a new crossover completely from scratch. Each member of the Confidence i family has its own unique crossover on board.



◀ ***Measures of success***
Confidence i was put through its paces in our jaw-dropping Jupiter measuring facility

The aim is to design a circuit that's as simple as possible while being only as complicated as necessary. As well as using the ingenious Dynaudio UltraPrecision Array resistor, we've teamed up once again with our friends at Duelund to specify high-quality capacitors in the tweeter and midrange sections, while air-core inductors mean less distortion and more linear behaviour, even at higher volume levels.

Confidence i's simplified crossovers keep the different parts of the signal more closely aligned in time, which means sharper kick-drums and more precise piano attacks. They mean a more involving soundstage and better dynamics. Consistent sound in different rooms. Smoother bass.

Less, in this case, is most definitely more.

Innovative bass port

Each Confidence i model has a custom-tuned bass port – listened to, measured and specified individually to suit that exact speaker. The only way you'll see it is if you disassemble the speaker (please don't), but you'll certainly appreciate its effect when you listen.

The port travels from deep inside the speaker down through the bottom, where it passes through the plinth and flares out. Meanwhile, a dense silicone port diffuser, carefully shaped to complement the flare, divides and directs air out to the sides.

The whole speaker sits on a solid steel base-plate, which is always in the same position and effectively takes the place of the floor. Or, for Confidence 20i, the top-plate of the stand. That never-changing foundation, the constant gap between it and the bottom of the hybrid port – plus the fact that there are no holes on the back of the speaker – means you can place Confidence on any surface (hard floor or deep-pile carpet) and in any position (next to a wall or in free space) without affecting the port's performance.

If you hadn't met a reference hi-fi speaker that was unfussy about positioning, now you have.

Furniture-grade cabinet

Part of the reason Confidence i sounds the way it does is that it looks the way it does. The cabinet is one of the few parts our engineers have left alone from the previous generation: it was uncompromising from the start – and remains the perfect home for the many improvements we've made inside it.

The elegant bullet shape is designed for acoustic reasons: it reduces the diffraction sharp edges can cause. But it also helps the speakers look slimmer and more elegant in the room. And the finish is what you get when men and women with decades of experience apply every second of it along with the lacquer.

You might spot a couple of differences from the previous Confidence range. Confidence i uses black Compex baffles, this time with a subtly de-bossed logo. And there's a new finish alongside Blonde and Ruby: the high-gloss black Space.



Technical specifications



Facts and figures

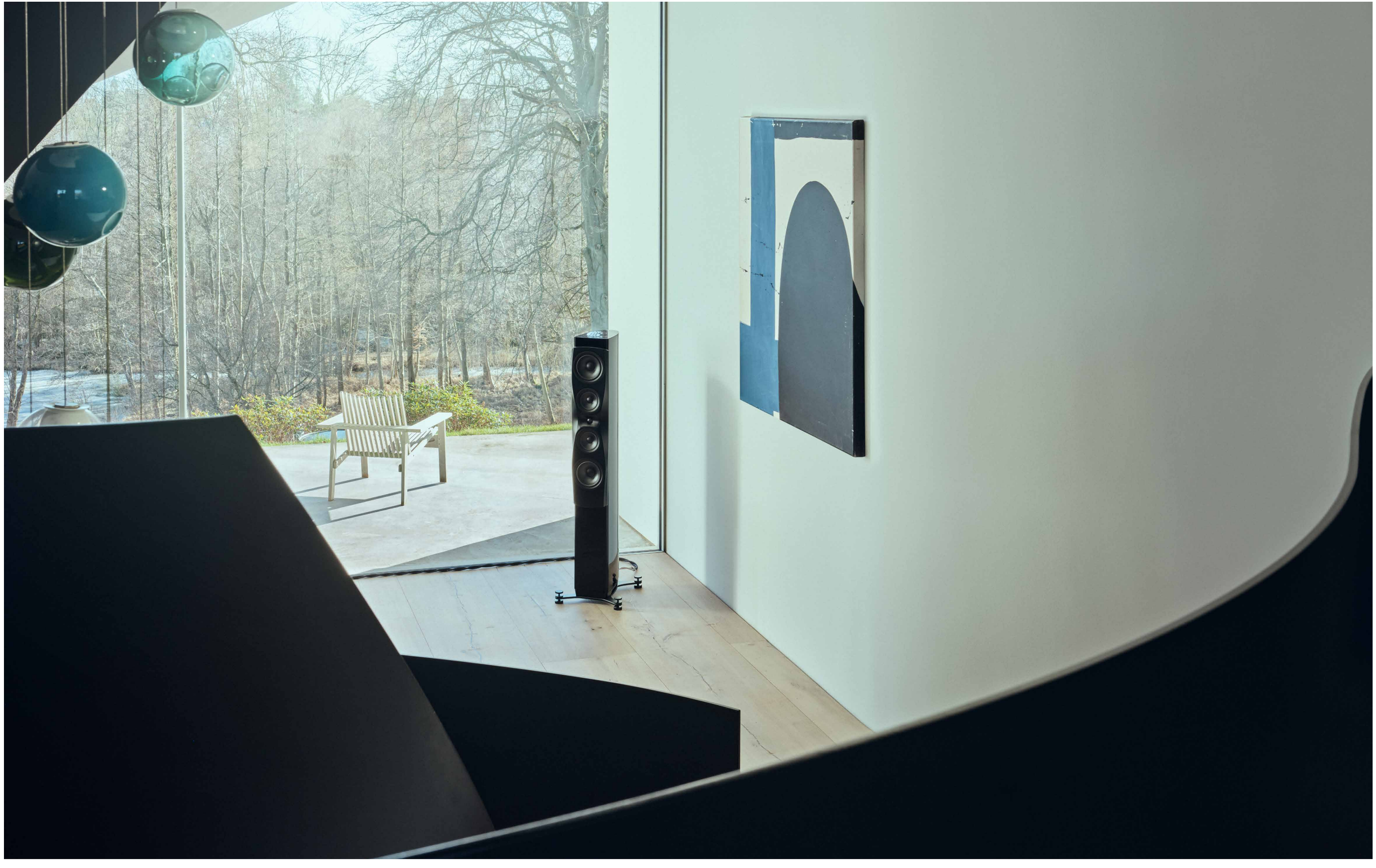
Everything you need to
know about Confidence i







	Confidence 50i	Confidence 30i	Confidence 20i
Sensitivity	88dB (2.83V/1m)	86dB (2.83V/1m)	87dB (2.83V/1m)
IEC long-term power handling	400W	350W	250W
Impedance	4Ω	4Ω	4Ω
Frequency response (+/- 3dB)	37Hz–27kHz	39Hz–27kHz	45Hz–27kHz
Box principle	Bass reflex down-firing port	Bass reflex down-firing port	Bass reflex down-firing port
Crossover	3-way	3-way	2-way
Crossover frequency	400, 3000Hz	320, 2800Hz	3000Hz
Crossover topology	1st/2nd/3rd order with DDC	2nd/3rd order with DDC	2nd/1st order with DDC
Woofer	2x 18cm MSP	2x 18cm MSP	18cm MSP
Midrange	2x 15cm MSP	15cm MSP	-
Tweeter	28mm Esotar 3i	28mm Esotar 3i	28mm Esotar 3i
Weight	49kg	44kg	27kg
Dimensions with feet/stand/grille (W x H x D)	416 x 1560 x 472mm	370 x 1385 x 438mm	370 x 1130 x 458mm
Finishes	Blonde Wood, Space High Gloss, Ruby Wood High Gloss	Blonde Wood, Space High Gloss, Ruby Wood High Gloss	Blonde Wood, Space High Gloss, Ruby Wood High Gloss
Grilles	Black	Black	Black



DYNAUDIO Confidence i

Designed and engineered by
Dynaudio Labs in Denmark

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