

DEVIALET
DIONE



WHITE PAPER

DEVIALET DIONE

SOUND. UNBOUND



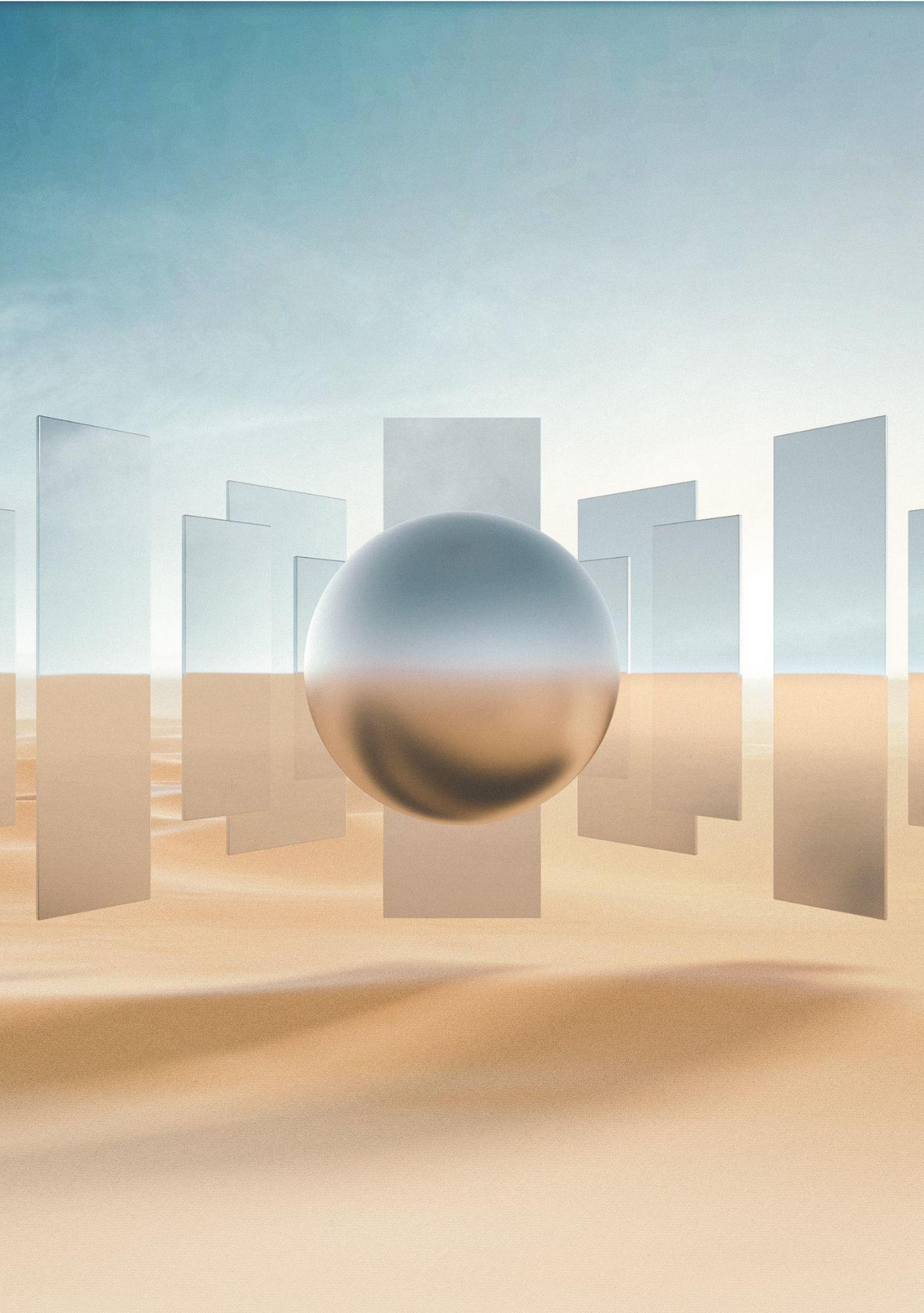
DEVIALET DIONE is Devialet's acoustic engineering applied to home cinema: a high-end, all-in-one Dolby Atmos® 5.1.2 soundbar that elevates all contents on your television.

Seventeen autonomous high-end drivers deliver dynamic midrange and crystal-clear treble, including eight built-in SAM®-powered subwoofers that produce deep infrabass while removing any need for additional equipment or satellite speakers, making DEVIALET DIONE a truly all-in-one soundbar.

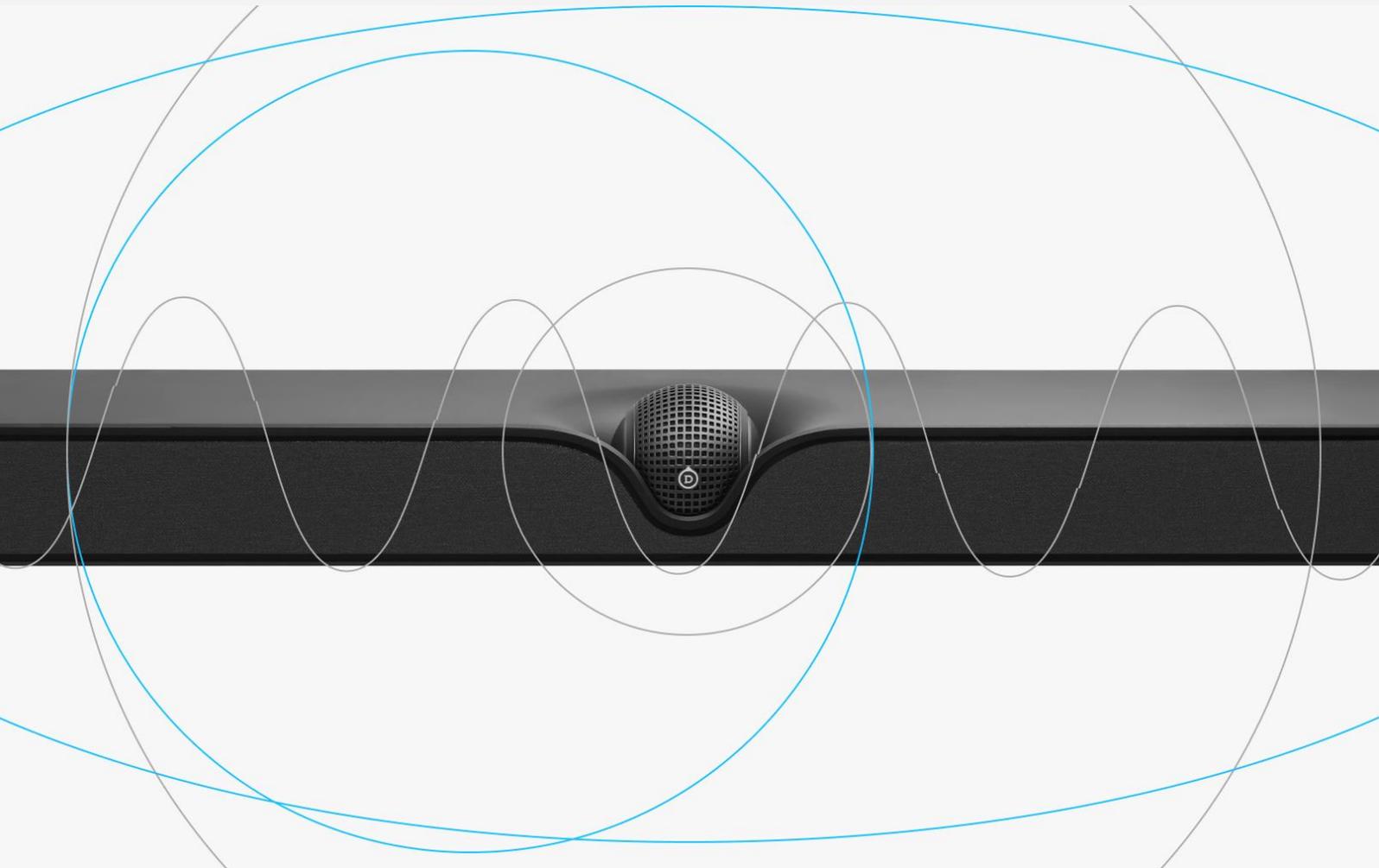
DEVIALET DIONE is powered by a suite of patented Devialet technologies that render it exceptional: SPACE® actively upscales any stereo-encoded 2.0 signal into a 5.1.2 signal, creating an enveloping spatial effect. A custom Room calibration software ensures sounds coming out of the soundbar will fit in any space. Adaptive Volume Level (AVL®) adjusts sound levels in real-time, to enjoy the impact of the sound effects without missing dialogue. Devialet's Advanced Dimensional Experience (ADE) technology delivers superior surround sound restitution thanks to innovative speaker placement and advanced digital filters.

On the aesthetic front, DEVIALET DIONE offers an incomparable size-to-performance ratio, standing out in design and sound quality, and blending in when the action begins. Its patented central ORB® allows DEVIALET DIONE to adapt mechanically and acoustically to any-in-home placement.

DEVIALET DIONE provides a plug-and-play way to enjoy a vivid, cinematic viewing experience in a 3-dimensional 5.1.2 configuration with amazing technologies, which we are pleased to show you in this document.



ACOUSTIC DEEP DIVE



17 speaker drivers including 8 dedicated subwoofers

DEVIALET DIONE comes equipped with 17 speaker drivers, including 8 dedicated subwoofers directly powered by the awarded ADH® amplification and SAM® signal processing technologies. This audio architecture results in 5.1.2 sound channels (five main channels, a subwoofer channel, and two elevation channels) that will fill any corner with your room with pristine audio and instantly transport the listener into a 3-dimensional world, no matter the content.

The inclusion of 9 full-range speakers and 8 high-excursion subwoofers elevates the soundbar experience to new height. DEVIALET DIONE doesn't rely on an external subwoofer or satellite speakers to create an immersive cinematic experience. It is a revolutionary all-in-one sound system capable of handling any multichannel audio format with optimal efficiency and compactness.

The 41 mm diameter full-range drivers create dynamic mid-range and crystal clear high frequencies, while the 134 mm woofers deliver deep and powerful bass down to 24 Hz while being arranged in Devialet engineered "push-push" configuration to further cancel any mechanical vibrations.

Each speaker driver unit is composed of an aluminum membrane with a high field neodymium magnet, providing excellent sensitivity and complementing the electroacoustic and mechanical characteristics of the soundbar.

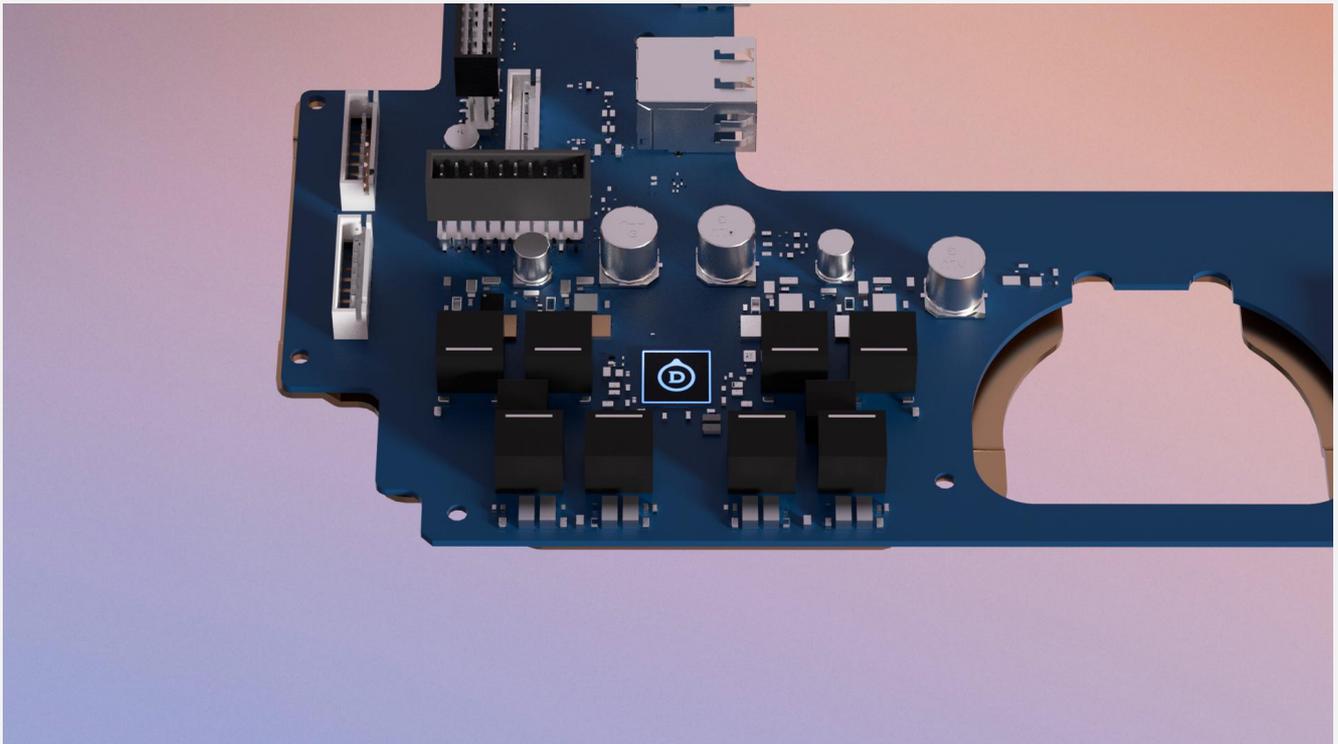


Devialet Intelligence Processor

DEVIALET DIONE is powered by the Devialet intelligence Processor, which is Devialet's patented audio system on a chip (SoC) and what makes up PHANTOM award-winning sound.

This unique audio SoC combines Devialet's amplification and signal processing technologies (ADH®, SAM®, Magic Wire, Class A, DAC) into a single 1 cm² silicon die, preserving the extreme performance level of the ADH® amplification (Total Harmonic Distorsion of 0.001%), while reducing the size of the hardware components by a factor of 200 and power consumption by a factor of 10.

Thanks to this, distortion and amplification are optimized for flawless listening at any volume without any saturation or hiss.



Devialet Intelligence Processor

Devialet custom audio SoC
surface: 1 cm²

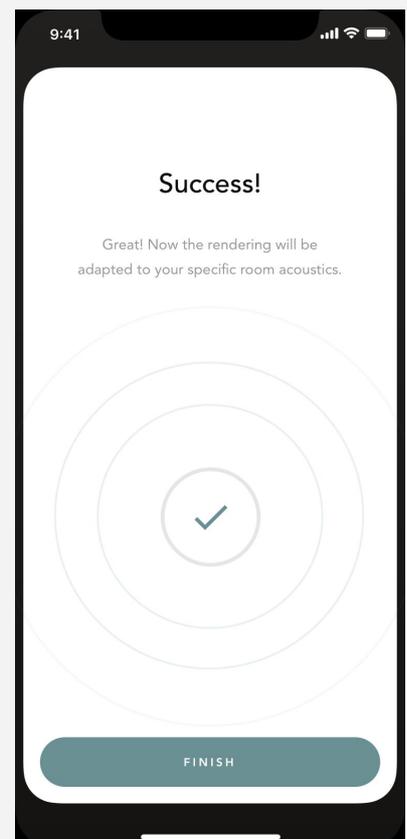
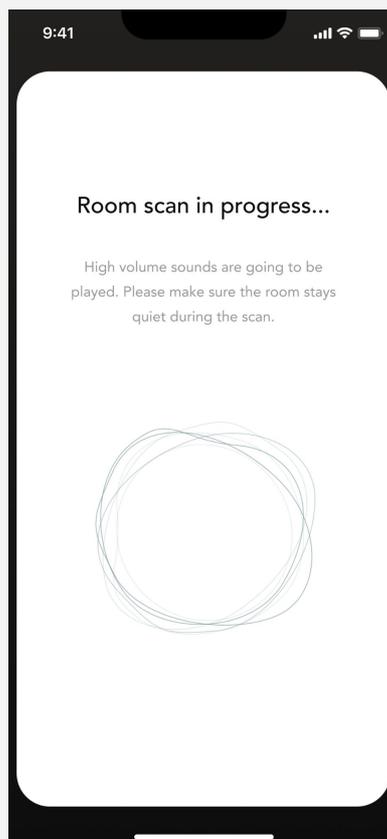
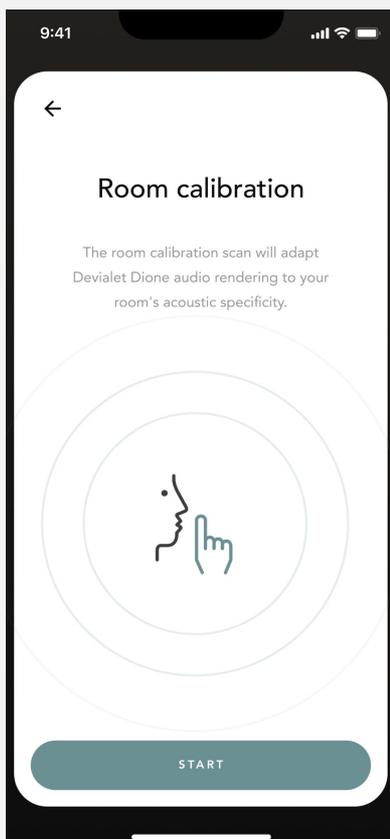


Room Calibration software

DEVIALET DIONE comes with the ability to scan and tune its rendering to the room it is placed in.

This custom software takes into consideration multiple acoustic parameters that might impact the audio quality such as room size, walls, furniture, layout, and the placement of the soundbar inside the room to create an accurate representation of the surrounding space. Then, by playing different echoes and frequency sweeps, DEVIALET DIONE will intelligently tune the sound output to the acoustic model of the room, so that the soundbar sounds as good as possible wherever it is.

The room calibration scan can be conducted at any time from the application settings. The internal microphones used for acoustic scanning can also be deactivated by pressing the microphone button located on the soundbar control panel.

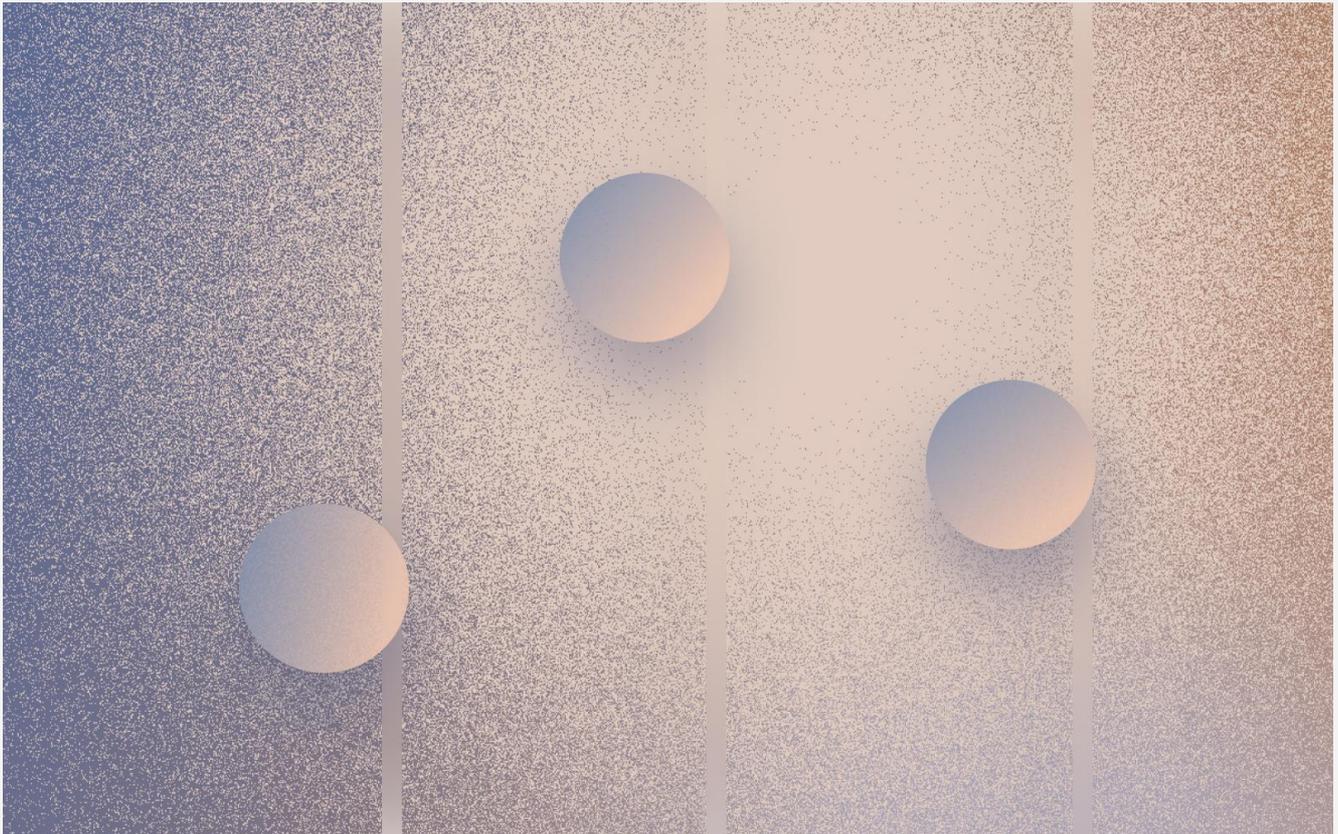


Dynamic Equalization with AVL™

DEVIALET DIONE also features AVL™ (Adaptative Volume Level), a unique dynamic equalizer that harmonizes sound levels in real-time depending on the content being played. This signal processing technology works by analyzing the signal upstream and making sure to homogenize the loudness of the multiple sounds that make up a movie scene such as dialogues, sound effects, and music, bringing key audible benefits such as:

- Smoother listening → avoiding movie scenes bouncing from too quiet to too loud
- Reinforcing clearness → fixing quiet or unintelligible dialog in an action scene
- Improved soundstage → better highlighting the different audio objects in the scene

With AVL™, DEVIALET DIONE offers a new way to enjoy and rediscover the magic of cinema at home without missing a single detail.





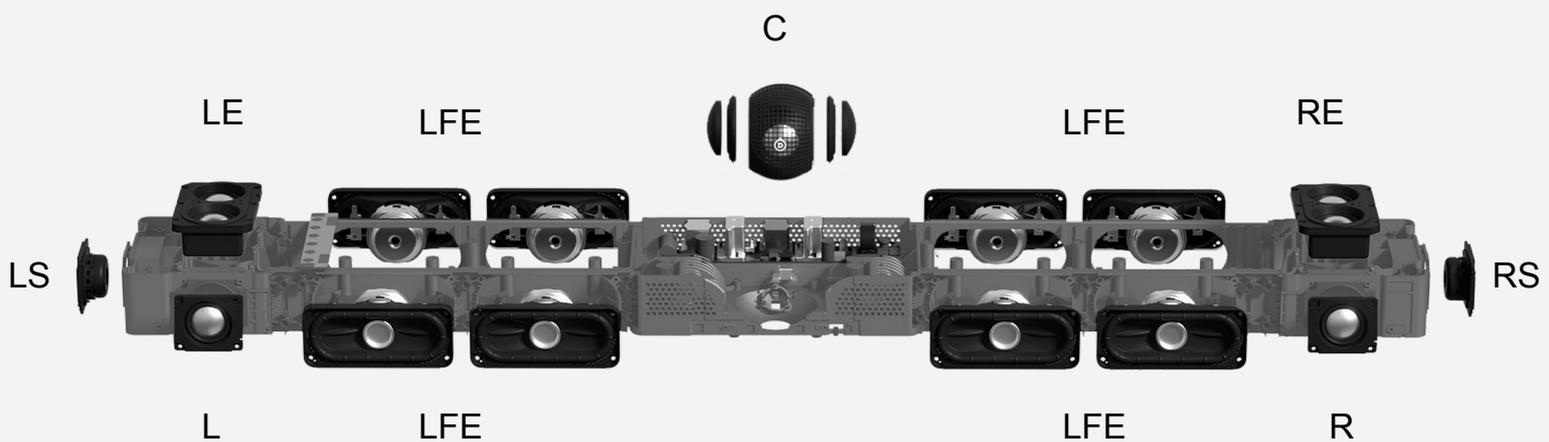
3-DIMENSIONAL AUDIO



5.1.2 Audio channels

DEVIALET DIONE is an advanced multichannel sound system, using 8 high-definition audio channels to create enveloping 3-dimensional effects and expand the width of the soundstage.

The 8 audio channels are configured in a 5.1.2 layout with advanced channel splitting depending on the soundbar orientation (horizontally on a shelf or vertically on a wall).



	Letter	Audio Channel
5 main channels	C	Center
	L	Left
	R	Right
	LS	Left surround
	RS	Right surround
1 bass channel	LFE	Low-Frequency effects
2 height channels	LE	Left Atmos up-firing
	RE	Right Atmos up-firing

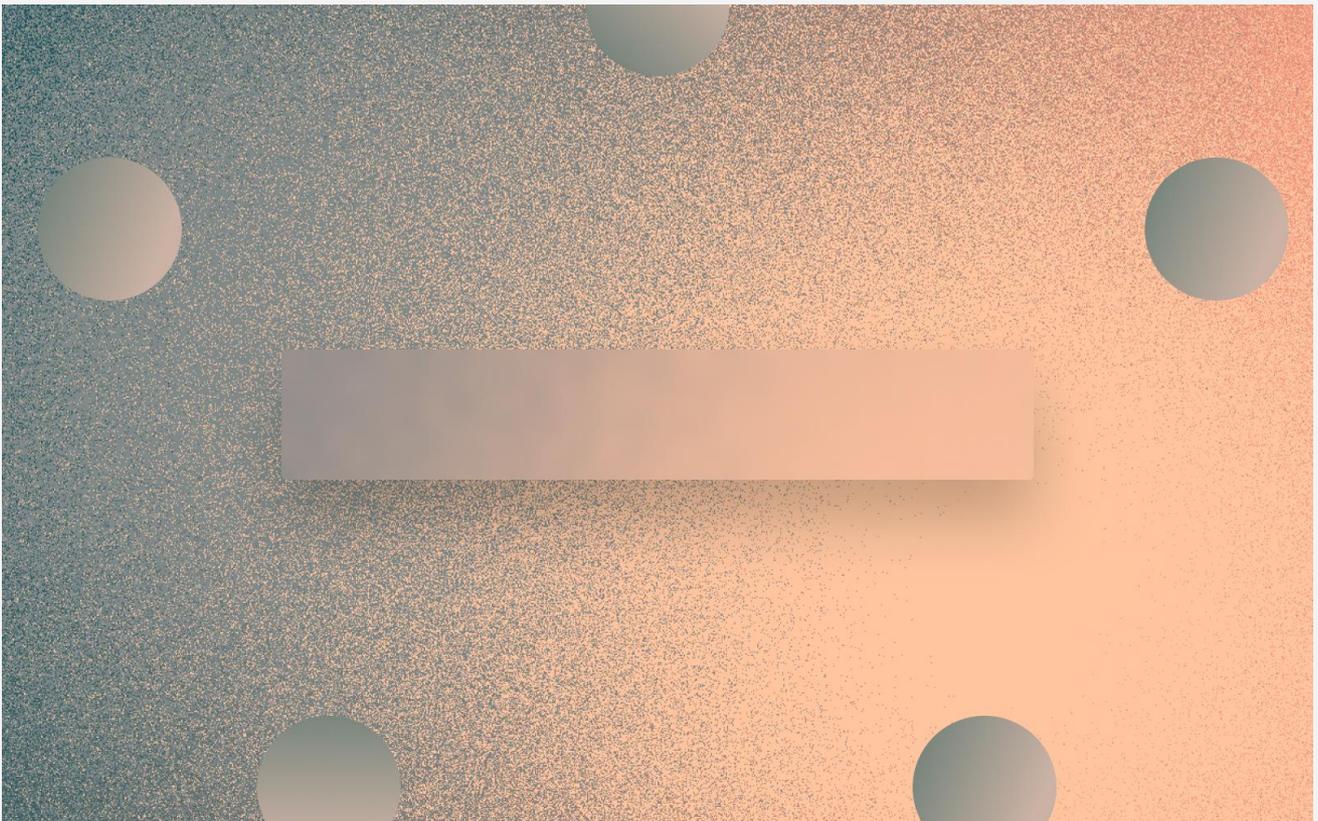


DOLBY **ATMOS**™ For 3D cinematic sound

DEVIALET DIONE is natively compatible with the Dolby Atmos® format, using the latest innovations in multichannel and object-based audio. Originally designed for the film industry, Dolby Atmos® delivers layered 3D sound from above, taking the viewer's experience into a 3-dimensional space.

Dolby Atmos® is used by filmmakers in the mixing stage to place sounds and voices at exact points in the soundstage rather than simply assign them to specific channels. With Dolby Atmos®, DEVIALET DIONE can distribute sounds in space with 3D effects that make the listener perceive airplanes as if they were flying overhead or hearing every friction in the cornfield during a thrilling chase down.

DEVIALET DIONE features two elevation audio channels to extend the soundstage and accurately reproduce sounds coming from above the listener with the use of Dolby Atmos® metadata.



Upmixing with SPACE™:

Embedded inside DEVIALET DIONE state-of-the-art signal processing stage, the Devialet SPACE™ technology leverages the full potential of the soundbar's 17 speakers by upscaling any signal into a thrilling 5.1.2 multichannel content.

SPACE™ upmixing algorithms are used through several listening modes to fine tune DEVIALET DIONE'S acoustic capabilities and enhance the viewing and listening experience.

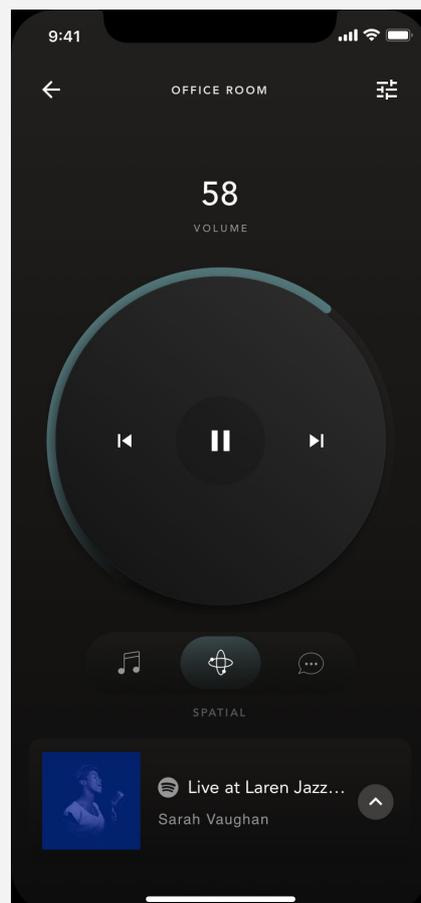
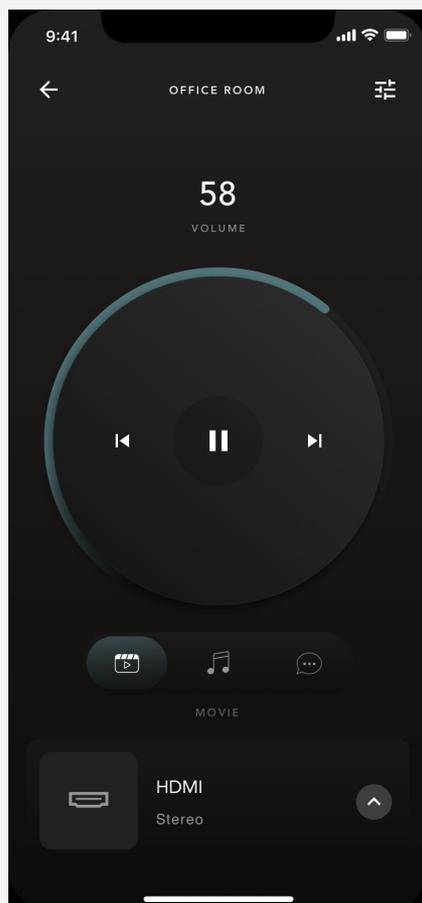
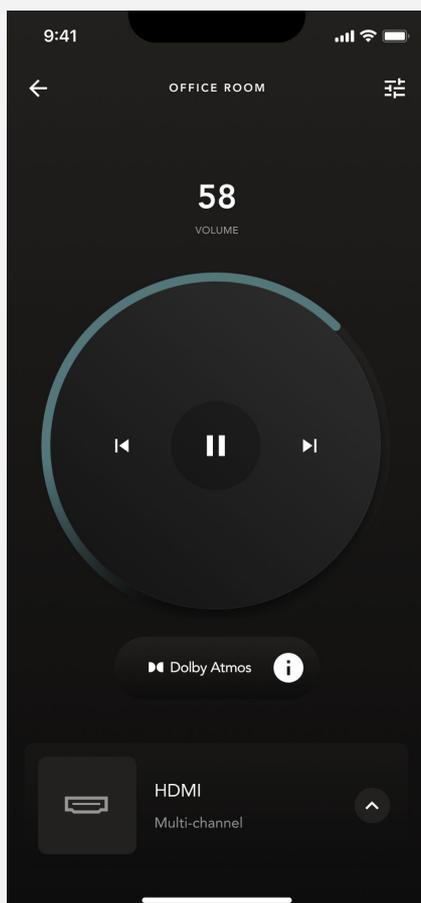
— Movie Mode actively converts stereo content into a full-fledged multichannel experience when connected via the HDMI and Optical inputs.

— Spatial Mode transforms stereo tracks into layered 3-dimensional sound when used with any wireless audio source (AirPlay 2, Bluetooth, Spotify Connect, and UPnP) to place the listener center stage and enjoy music and other content at their best.

— Voice Mode boosts accuracy and intelligibility on programs like podcasts and news.

— Music Mode faithfully reproduces a stereo setup and disables all spatialization effects.

Movie is turned on by default on the HDMI/Optical input and Music Mode for every online source. Spatial and Voice Modes can be turned on at any time using the Devialet application.



Directional Audio with ADE

DEVIALET DIONE also features the Advanced Dimensional Experience (ADE) patented technology. This innovation was specifically designed for DEVIALET DIONE, it combines ingenious speaker placement detection and advanced digital filters to deliver superior multichannel audio restitution through the use of beamforming techniques.

Beamforming has been studied as a signal processing technology in diverse areas like wireless communication and seismology to enhance the broadcast of a signal in a specific direction and limit its contamination from other directions.

For multichannel audio broadcasting, Devialet ADE technology uses beamforming from a spatial point of view:

DEVIALET DIONE relies on a dedicated speaker array to create a Spatio-temporal filter which effectively boosts the amplitude of sound waves coming from a specific angle (through constructive interference) and rejects sound waves from elsewhere (through destructive interference).

In effect, ADE allows DEVIALET DIONE to optimize the surround and elevation audio channels broadcast and reflection according to the position of the soundbar (either horizontal or mounted vertically on a wall).

For the listener, this maximizes the impact and immersion of multichannel content at all times, no matter the position of the soundbar, while delivering superior audio all around.



HDMI 2.1 eARC/CEC & TOSLINK Optical audio

DEVIALET DIONE comes equipped with a modern HDMI 2.1 eARC port using the latest version of the HDMI® specification to support the most advanced audio formats and highest audio quality.

eARC (Enhanced Audio Return Channel) is the next generation of ARC (Audio Return Channel), it enables DEVIALET DIONE to receive the original full-resolution audio signal in lossless formats and at the highest bit rate possible. The HDMI eARC input is backward compatible, so it can be used with earlier versions of the HDMI ARC specification without any issue.

The HDMI 2.1 eARC input also features CEC (Consumer Electronics Control), giving the user the ability to control the soundbar and the TV with a single remote controller.

Additionally to the HDMI input, DEVIALET DIONE comes with a TOSLINK Optical input to receive digital audio streams from TVs and other audio components.

It is important to note that given the high bandwidth of object-based audio format, it is necessary to use the HDMI input to enjoy Dolby Atmos® content.

Here is a recap of the different audio formats and required input:

Function	Optical S/PDIF <i>supported by DEVIALET DIONE</i>	HDMI-ARC <i>supported by DEVIALET DIONE</i>	HDMI-eARC <i>supported by DEVIALET DIONE</i>
Necessary cable	TOSLINK Optical	Standard HDMI	High-Speed HDMI
Stereo audio	Yes	Yes	Yes
Compressed 5.1	Yes	Yes	Yes
Uncompressed 5.1	No	No	Yes
Compressed object-based audio (Dolby Atmos)	No	Yes	Yes
Uncompressed object-based audio (Dolby Atmos)	No	No	Yes
TV Remote Sync (CEC)	No	Yes	Yes



DEVIALET

ETHERNET	<p>DEVIALET DIONE</p> <p>DEVIALET</p> <p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p> <p>Model 型号/型号 MM593 S/N 序列号/序列号</p> <p>10 place Vendôme, 75001 Paris, Production year 製造年份</p> <p>Contains FCC ID: FCC: 2A0HH-TURBOXC405-D; IC: 23465-TURBOXC400, CAN ICES-3(B)/NMB-3(B)</p> <p>生产者/ 制造商: Devialet, 进口商: 台湾帝瓦雷 MAINS /规格 100-240V - 50/60Hz 2.5A</p> <p>Made in China</p>	HDMI ARC / ARC
OPTICAL		A/C POWER

DESIGN & MECHANICAL INTEGRATION

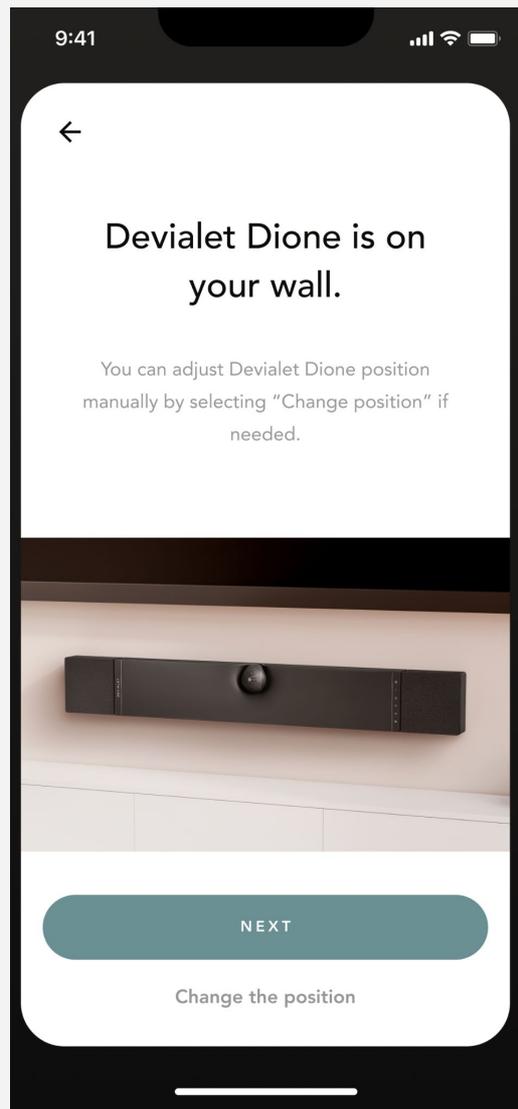
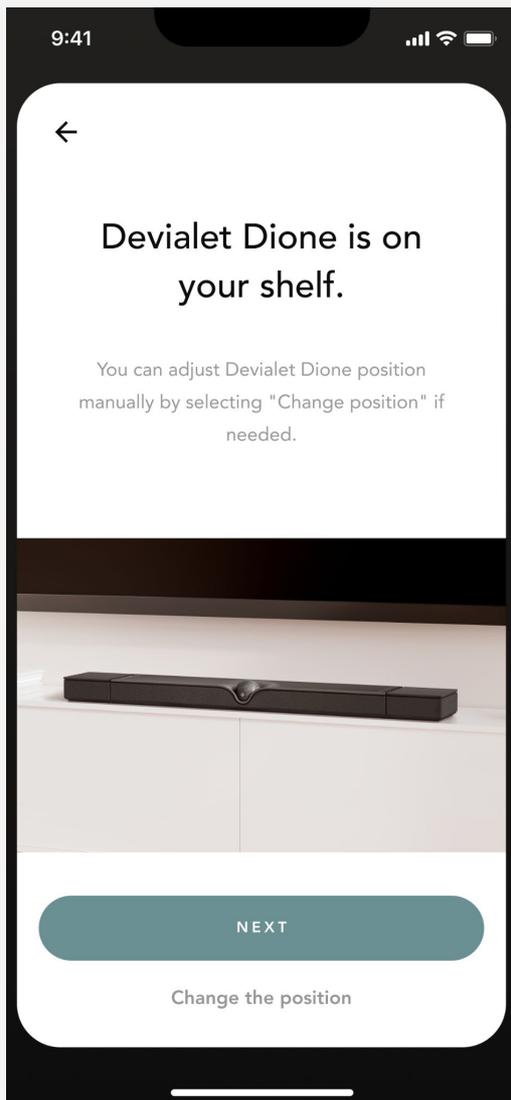


Flexible Installation

In addition to fine-tuning its sound profile through room calibration software, DEVIALET DIONE comes with the ability to intelligently arrange speaker channel splitting based on the position of the soundbar (flat on a shelf or mounted on a wall).

This is achieved with the help of DEVIALET DIONE internal gyroscope and the latest virtualization technology to seamlessly enhance multidimensional sound and offer the full immersive experience no matter the position.

Users will be asked to actively confirm the detected position of the soundbar before finalizing the product installation inside the app. After confirmation of the final position, speaker channel mixing will be intelligently adapted to the orientation of the soundbar.

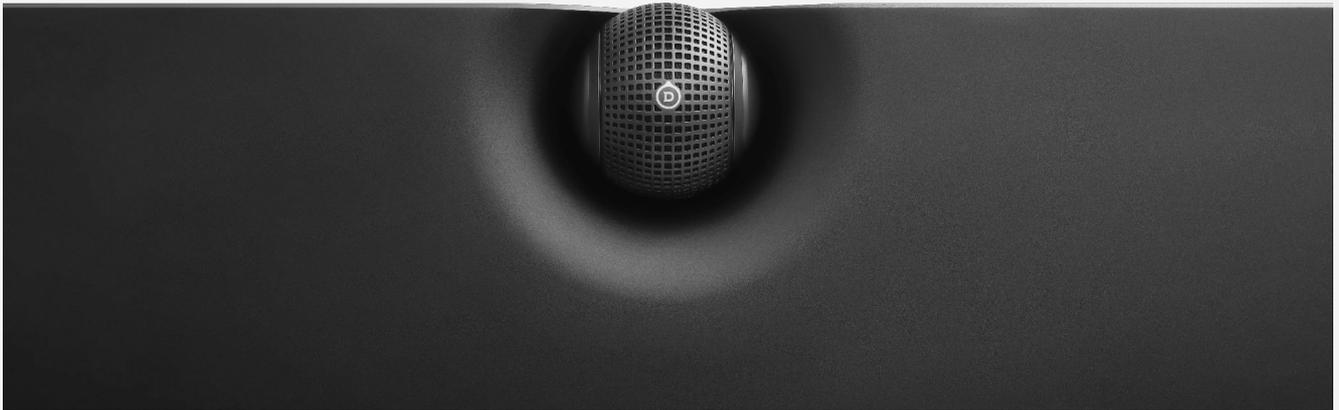
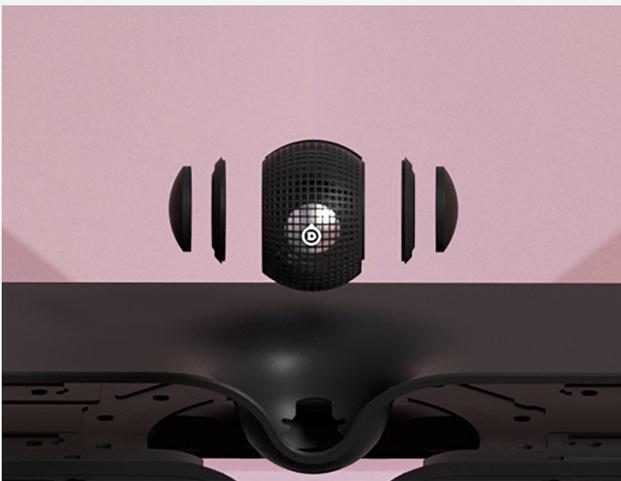




ORB® central sphere

Rounding out the angular silhouette of DEVIALET DIONE, ORB® is the focal point of the soundbar's design. In addition to hosting 1 active speaker and 2 passive radiators, this central sphere is an aesthetic nod to Devialet's iconic speaker, PHANTOM, and a point of focus.

With the ability to rotate the sphere 180° clockwise, it can visually and acoustically maintain its front-facing position whether wall-mounted or when placed flat on a piece of furniture.



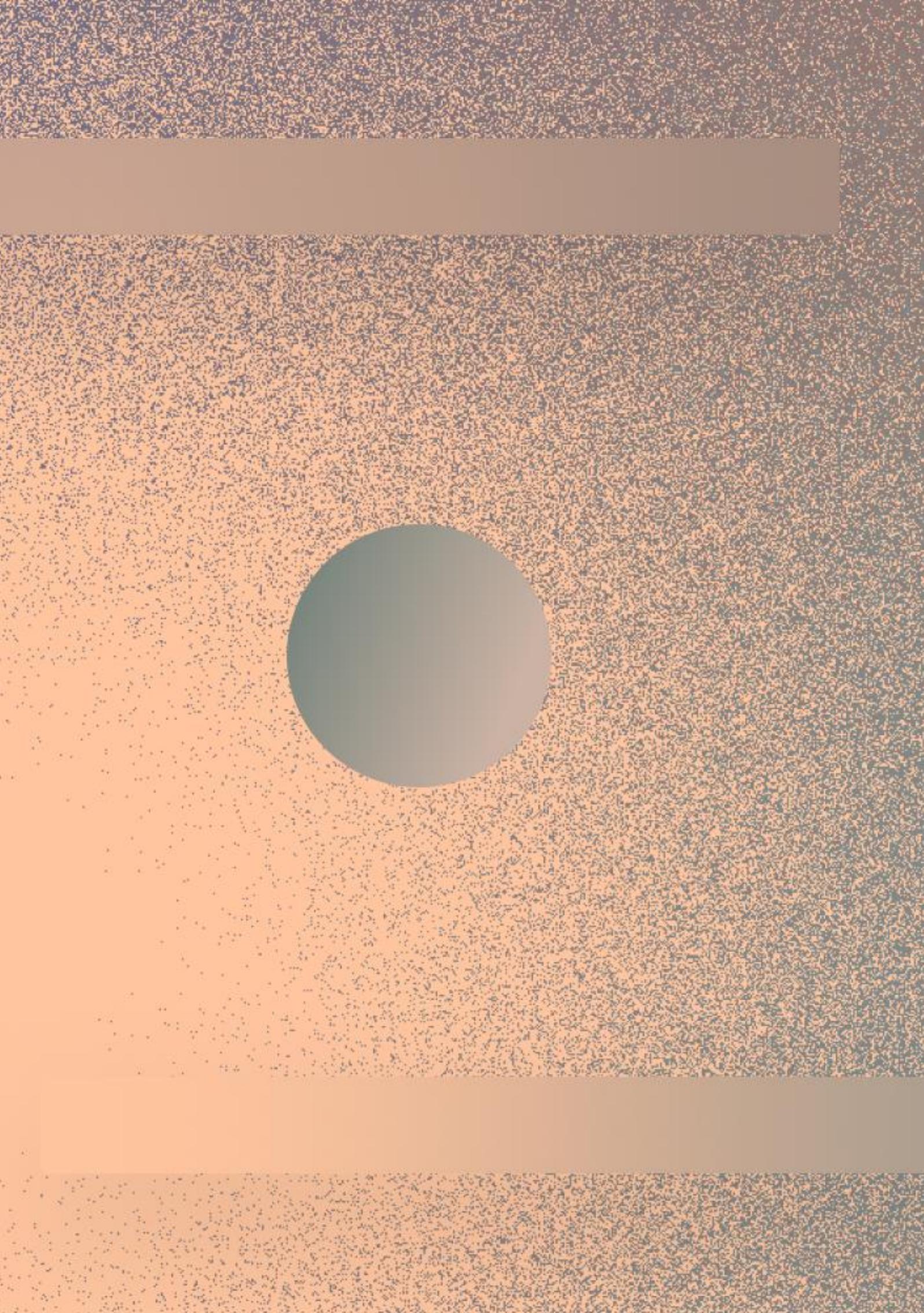
Size & Thinness

DEVIALET DIONE offers an incomparable size-to-performance ratio, standing out from a design standpoint and blending in when the action begins. ORB®, the central sphere hosting 3 speakers is the focal point of the soundbar geometry and an elegant nod to its cousin, PHANTOM.

Thin and discreetly angular, DEVIALET DIONE integrates beautifully into the home. Measuring 47 inches (1200 mm) wide, 6.5 inches (165 mm) deep, and 3.5 inches (77 mm) tall. The soundbar is carefully crafted with premium material all around, with the central core body made from anodized aluminum and coated with acoustic fabrics all along.

Created with a user-centric design, the control panel housed on the side of the soundbar is easily accessible by the user even when fixed on a wall, providing a medium to interact with DEVIALET DIONE without the need to use a remote or the Devialet application.





Devialet application (same ecosystem as Phantom)

DEVIALET DIONE uses the same companion app as PHANTOM: the Devialet application. Providing a wide range of listening modes, features, and connectivity that enriches the listening experience and offers constant access to the latest firmware updates.

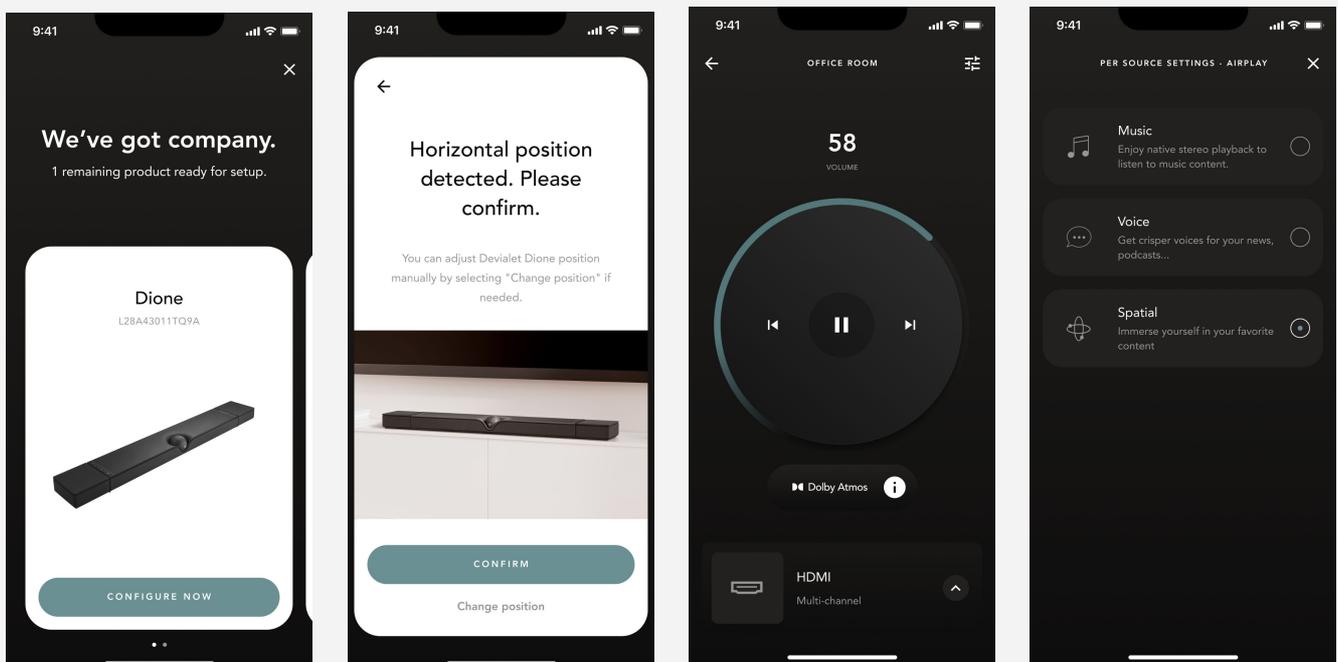
Once downloaded via the App Store or the Play Store, it only required a few steps to install and configure DEVIALET DIONE in the desired room.

The application is a powerful and intelligent companion to control DEVIALET DIONE as well as any PHANTOM configured on the network.

It provides an open and versatile software ecosystem to take advantage of the many streaming services via compatible protocols: AirPlay 2®, Bluetooth, Spotify Connect, and UPnP, as well as tutorials to start directly within the application.

It also allows the user to precisely control the volume while in different rooms and offers direct control of DEVIALET DIONE listening modes using SPACE™ technology (Movie, Spatial, Music, Voice). The Application also gives access to many settings for the soundbar such as Room calibration scan and night mode which reduces bass intensity as well as latency control parameters to improve stability or reactivity on any wireless and physical inputs.

Finally, thanks to the Devialet application, each user can access the latest updates of the product internal firmware as well as the latest fix and enhancements.





The Devialet Remote

Already a faithful companion to PHANTOM, the Devialet Remote is also compatible with DEVIALET DIONE, giving the user the possibility to adjust the volume, change the music, and turn off the soundbar while remaining comfortably seated.

Remote pairs and communicates with DEVIALET DIONE using a Bluetooth 5.0 connection with a range of up to 20 m from the connected device. It is powered by a lithium-ion battery with an autonomy of up to 2.5 months and is quickly recharged by using the included USB-B cable.

It is also equipped with a proximity sensor as well as a module with an LED display matrix for better visibility. The Devialet Remote integrates perfectly into the Devialet ecosystem as a whole. Its sleek and minimalist design, adorned with refined details such as its stainless steel ring, remains in line with Devialet's simplicity and ergonomic excellence.

DEVIALET DIONE

SOUND. UNBOUND.



A TRUE ALL-IN-ONE SOUNDBAR

Dolby
ATMOS

SPACE™
5.1.2 MULTICHANNEL

101 dB SPL
SOUND IMPACT

Devialet Dione is the latest embodiment of Devialet's engineering and acoustic expertise: an intensely immersive soundbar that's equally advanced and intuitive.

17 autonomous high-end drivers deliver dynamic midrange and crystal-clear treble, including 8 built-in SAM®-powered subwoofers that produce deep infrabass while removing any need for additional equipment, making Devialet Dione a truly all-in-one soundbar.

UNIQUE DEVIALET INNOVATIONS

SPACE™ Upscales any content into Devialet Dione 5.1.2 audio channels.

ADE® Digital signal processing technology to reinforce 3D immersion.

AVL™ Dynamically equalizes sound levels for a more enjoyable viewing experience.

SAM® Patented audio processing that enhances speaker fidelity and bass response.

ADH® Devialet's award-winning analog-digital amplification system.

INTENSELY IMMERSIVE, WITHOUT COMPROMISE


HDMI 2.1
eARC


OPTICAL
(TOSLINK)


AIRPLAY 2


SPOTIFY
CONNECT


BLUETOOTH 5.0


UPnP

DIMENSIONS (WXDXH): 1200 MM X 165 MM X 88 MM

DEVIALET DIONE spec sheet

KEY PERFORMANCES

SOUND PRESSURE LEVEL	101 dB SPL at 1 meter
AUDIO CHANNELS	5.1.2 Multichannel
FREQUENCY RESPONSE	24Hz - 21kHz
TOTAL AMPLIFICATION POWER	950 Watts RMS

SPECIFICATIONS

AUDIO TECHNOLOGIES	<p><u>SPACE®</u>: Proprietary upmixing algorithm which upscales mono and stereo content into DEVIALET DIONE 5.1.2 audio channels</p> <p><u>Devialet ORB®</u>: Patented central sphere design which adapts to the position of the soundbar (flat surface or wall-mounted)</p> <p><u>ADE</u>: Innovative speaker placement with advanced digital filters to reinforce 3-dimensional immersion</p> <p><u>AVL®</u>: Real-time dynamic equalization which harmonizes sound levels for a more enjoyable viewing experience</p> <p><u>Devialet Intelligence Processor</u>: Audio system on a chip embedding Devialet's awarded technologies including ADH® and SAM®</p>
SPEAKERS	<p><u>17x neodymium drivers:</u> 9x Full-range aluminium drivers 8x Aluminium long-throw subwoofers</p>
DIGITAL TO ANALOG CONVERTER	<p>Devialet DAC embedded in Devialet intelligence Processor 24bits/96kHz</p>
PROCESSOR	<p>4x ARM Cortex-A53 1.25GHz processor 1GB DDR3-800 memory</p>
MATERIALS	<p>Central core: Anodized aluminum External & sides layer: Acoustic fabric Rear protective panel : PC-ABS</p>
COLORS AND FINISH	<p>Dark Grey</p>
SIZE AND WEIGHT	<p>Width: 1200 mm Height: 77 mm (88 mm with the sphere) Depth: 165 mm</p>
	<p>Weight : 12 kg</p>
POWER SUPPLY	<p><u>Devialet custom-built power supply</u> IEC320/C8 100-240 V~50/60Hz High output with power factor correction (PFC) Short circuit resistant</p>

FEATURES

CONNECTIVITY	AirPlay 2 Spotify Connect Bluetooth 5.0 UPnP
AUDIO INPUTS	1x HDMI 2.1 with eARC/ARC, and CEC compatibility 1x Optical TOSLINK S/PDIF
OPERATING SYSTEM	Devialet Operating System 2 (DOS 2)
MOBILE APP	Compatible with the Devialet Application (same app as Phantom) Room calibration scan SPACE™ audio mode control (Movie, Spatial, Music, Voice) Volume control wheel Regular update
NETWORK	Wi-Fi Dual-band (802.11a/b/g/n/ac 2.4 GHz & 5 GHz) Ethernet RJ-45 10/100/1000 Mbps (Gigabit) Bluetooth 5.0
AUDIO FORMATS	PCM/LPCM, Dolby Digital, Dolby Digital Plus, Dolby TrueHD, Dolby Atmos

WHAT'S IN THE BOX

	Devialet Dione soundbar 1x High Speed HDMI cable (supporting Dolby Atmos) 1x TOSLINK Optical cable 1x Power cable Documentation Wall-mount accessories
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