

DEVIALET
GEMINI II

(IM)PERMEABLE SOUND



WHITE PAPER

(IM)PERMEABLE SOUND

You can't be in two mindsets at once. Or can you? With second-generation Devialet Gemini II True Wireless earbuds, your feet may be on the ground, but your mind is in another world. Fifteen years of acoustics R&D and engineering have been condensed into an even smaller and more ergonomic design that brings you the best of sound in all its dimensions. A new custom titanium-coated driver, Qualcomm® aptX™ codec, Devialet Adaptive Noise Cancellation™, Bluetooth 5.2 with multipoint, enhanced user experience and connectivity are just the beginning.



Devialet Adaptive Noise Cancellation™ and Transparency Modes



Active Wind Reduction (AWR)



10mm high-sensitivity driver topped with titanium coating for optimal audio rendering

Second generation. Second to none.

DEVIALET GEMINI II packs a suite of enhanced innovations to take the listener even deeper into pure unaltered sound: a brand-new custom 10 mm Devialet titanium-coated driver and Qualcomm® aptX™ codec offer an even deeper acoustic experience and with the new patented Active Wind Reduction (AWR) technology, the earbuds will actively reduce wind noise to reinforce the user immersion automatically and in any environment. Voice calls have also been completely redesigned to encompass an advanced voice pick-up algorithm along with a built-in modern bone conduction sensor.

With DEVIALET GEMINI II, the user is protected from the ambient chaos and transported to a place that's harmonious and pure. Our new Devialet Adaptive Noise Cancellation™ technology dynamically adjusts to the shape of the ear to reduce any audio artifacts and white noise. A hybrid dual-microphone structure teams up with digital filters using proprietary Internal Delay Compensation (IDC®) technology to improve both the level of active noise reduction and its effective bandwidth even further. Enjoying music at its finest is easier with Devialet Gemini's Bluetooth 5.2 connectivity with multipoint connection and auto switch between two active devices simultaneously.

On the design front, the reimagined second-generation earbuds boast the same soft touch and iconic shape, but in a more compact, sleek, and versatile design. Their curvature has been optimized to fit any ear, and improved microphones are more seamlessly encapsulated inside the earbud. The charging case now features a flip top for instant access and is 40% smaller to fit easily inside any pocket.

DEVIALET GEMINI II provides a state-of-the-art true wireless listening experience with advanced noise control innovations and refined user experience with incredible technologies, which we are pleased to show you in this document.



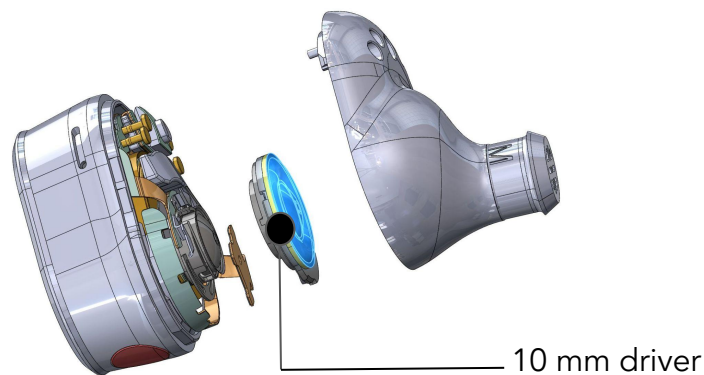
PURE SOUND. PURELY INSEPARABLE.

Next-generation earbuds, next-level sound. Devialet Gemini II packs a suite of enhanced tech to take you even deeper into pure sound: a brand-new custom 10 mm Devialet titanium-coated driver and Qualcomm® aptX™ codec offer an even deeper acoustic experience. With the new Active Wind Reduction (AWR) technology, your earbuds will actively reduce wind noise. This is uncompromised listening.

Custom 10mm Titanium coated driver.

DEVIALET GEMINI II embeds a customized loudspeaker specifically chosen to complement the electroacoustic and mechanical characteristics of the earbuds.

The 10 mm diameter driver unit, wider than the average of the competitors, allows the earbuds to provide rich and powerful bass down to 5 Hz, melodic mid-range, and crystal clear treble up to 20 kHz. All of this while maintaining excellent linearity and power sensitivity. The inclusion of titanium coating to top the three layers of polymers, as well as a signature neodymium magnet, substantially optimize the earbuds' stiffness and help generate ultra-precise noise cancellation signals. The unit uses a high-field neodymium magnet, providing excellent sensitivity.



10 mm diameter
High sensitivity



Titanium coated
membrane



High-field
Neodymium magnets



Devialet Sound
Expertise

Qualcomm® aptX™ codec: high-fidelity audio and low latency connectivity

DEVIALET GEMINI II features Qualcomm® aptX™ codec, the state-of-the-art audio coding technology designed to enhance Bluetooth wireless sound quality.

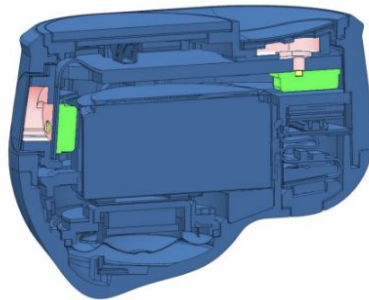


Whether the users are tuning into their favorite track or gaming with friends, they will benefit from seamless synchronisation.

Wind noise reduction with AWR.

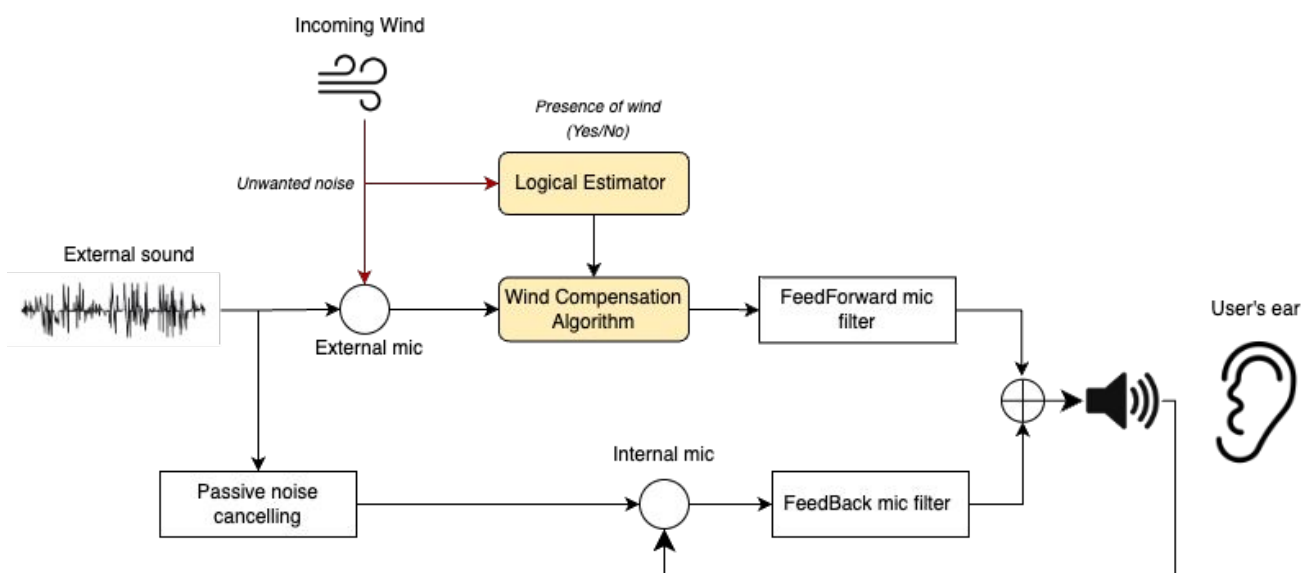
DEVIALET GEMINI II also features AWR (Active Wind Reduction), a proprietary solution that uniquely blends mechanical and design innovation with software algorithms to greatly limit the impact wind has on the user experience.

On the mechanical side, both external microphones are tightly cradled in a protective layer of high impedance anti-wind mesh material to limit the impact of wind on the microphones membranes. Additionally, the microphones are hidden behind a cavity to protect them from the wind blowing and turbulence that can form on the surface of the earbud.



Each external mic is hidden in behind a layer of high impedance anti-wind material, and a cavity protects the microphone membrane from any wind blowing on the surface of the earbud.

On the software front, the teams have built a precise wind detector program, using the microphones as input and real-time digital processing to smartly control the intensity of the Transparency gain to limit the presence of wind noise inside the signal.



The Automatic Wind detector is thanks to a proprietary algorithm that triggers mic compensation to lower wind effect in the Transparency loop.



DEVIALET ADAPTIVE NOISE CANCELLATION™

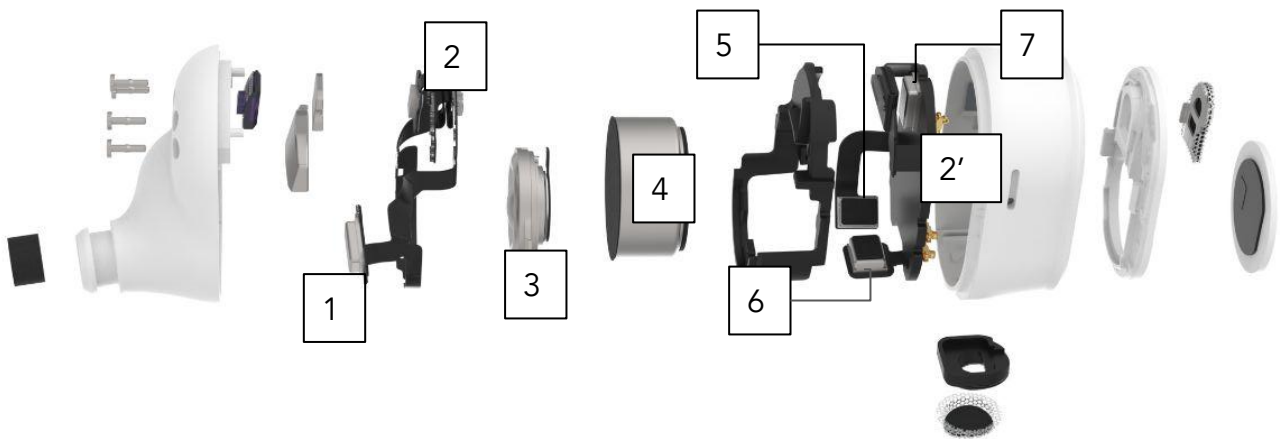
With Devialet Gemini II, you're protected from the ambient chaos and transported to a place that's harmonious and pure. Our new Devialet Adaptive Noise Cancellation™ technology dynamically adjusts to the shape of your ear. The result? Reduction in audio artifact, reduction in white noise and a more pleasant listening experience with zero compromise on performance. Additionally, a hybrid dual-microphone structure teams up with digital filters using our proprietary Internal Delay Compensation (IDC®) technology to improve both the level of active noise reduction and its effective bandwidth even further.

Devialet Adaptive Noise Cancellation™.

DEVIALET GEMINI II comes with a brand-new version of our patented Active Noise Cancellation™ technology now with adaptive in-ear capabilities.

The new Devialet Adaptive Noise Cancellation™ dynamically adjusts to the shape of your ear, which greatly reduces audio artifacts and white noise to allow for a pleasant listening experience with zero compromise on reduction level and bandwidth effectiveness.

DEVIALET GEMINI II Noise Cancelling system relies on a hybrid dual-microphone structure coupled with digital filters using proprietary Internal Delay Compensation (IDC®) technology to improve both the level of active noise reduction and extend its intensity in the higher frequencies.



1	Feedback mic (FB mic)	5	Voice pick-up bone sensor
2 / 2'	Printed Circuit Board (PCB)	6	Talk mic
3	10 mm titanium driver	7	Feedforward mic (FF mic)
4	Battery		

Internal Delay Compensation (IDC®).

The performance of Devialet Adaptive Noise Cancellation™ in high frequencies is largely based on the IDC® algorithm.

In practice, conventional ANC systems are less efficient on middle and high frequencies (generally from 1.5 kHz upwards). The higher the frequency, the greater the delay in reduction in the higher frequencies. Therefore, a phase shift in the system can be observed. Additionally, the strong directionality of the higher frequencies are more difficult to cancel than the less directional low frequencies.

IDC® is a proprietary signal processing system that allows for the precise adaptation of noise processing filters by anticipating the natural limitations of an ANC system. Sound signal processing is performed digitally in the frequency domain.

The IDC® algorithm acts directly on the transfer function of the anti-noise filter, it ensures that its response is optimized to extend the range of action of the filter to extend its action band from the infrasonic bass to the midrange.

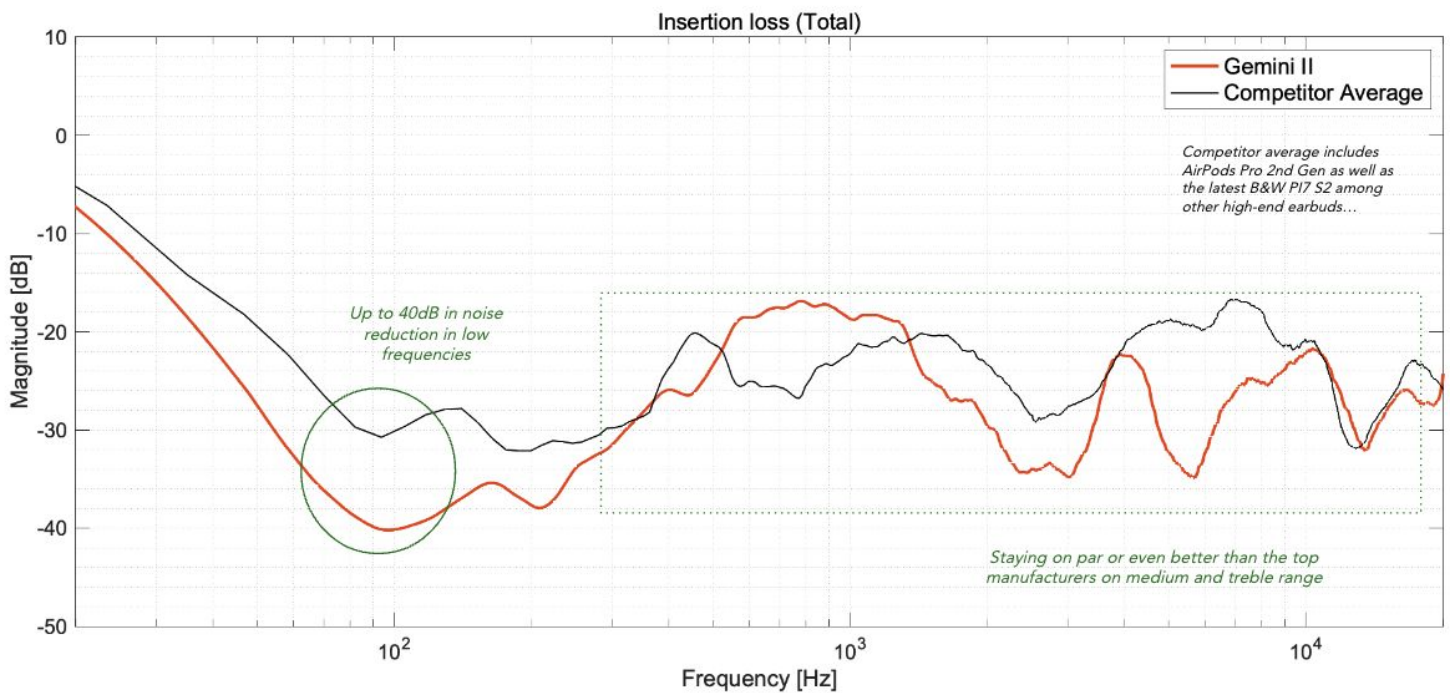


What are the performances of Devialet Adaptive Noise Cancellation™ ?

Devialet Adaptive Noise Cancellation™ provides a set of audible benefits:

- Essential noise reduction on a set of frequencies, with up to 40 dB of attenuation on low frequencies (averaging twice as much as the competition in 2023).
- Better passive insulation in the medium and high frequencies.

The following graph* shows the amplitude of the reduction over all frequencies of the audible spectrum compared to the average of competing products positioned in the same price range (the lower the curve the better).



*Insertion loss measured in an equalized diffuse field.

Background noise playback system composed of 8 wall-mounted speakers with 3 subwoofers using a pink noise signal.

Transparency Mode.

Thanks to the transparency mode, the listener can enjoy the best of sound while staying in tune with the surrounding world. The external environment and dialogues become permeable for better interaction with the user's surroundings.

Based on the same hybrid structure as Devialet Adaptive Noise Reduction™, the transparency mode uses the two microphones of the ANC system to allow users to actively hear external sound as naturally as possible.

The transparency of DEVIALET GEMINI II has been worked to faithfully retransmit external sound without amplifying or attenuating the original signal.





ERGONOMICALLY UNIVERSAL.

In rethinking the design for the second-generation Devialet Gemini II, we studied the design of the human ear in deeper detail. That gave life to this universal shape that ensures stability no matter how much you move. Four sizes of noise isolation ear tips ensure Devialet Gemini II nestles into the ear, fitting so well you might even forget they're there. Additionally, the earbuds come equipped with a charging case that is easy to slip into your pocket.

Easy to wear.

DEVIALET GEMINI II's refined ergonomics were carefully designed. Our teams have carried out rigorous, in-depth work to analyze the different forms of the human ear and create a more universal shape that fits every ear. The second-generation earbuds are 22% smaller than the previous ones.

Four distinct eartip sizes - XS, S, M, L - ensure an optimal fit and a sensation of lightness making DEVIALET GEMINI II earbuds more versatile and comfortable.

The all-in-one touch button at the top of the earbuds makes it easier to use and more customizable, letting the users select which gesture will switch on the Devialet Adaptive Noise Cancellation™, activate voice assistant, play/pause music, and more.

As for the charging case, its revamped design is 40% more compact and can easily fit inside any pocket.



Built to withstand.

DEVIALET GEMINI II's IPX4 rating guarantees resistance to sweat and water splashes providing additional support when exercising.

A new protective grid at the end of silicone eartips combined with a foam component integrated into the earbud tube, prevent any foreign substance (dust, debris) to enter the earbuds. If damaged over time, both components can be cleaned and/or replaced, maximising DEVIALET GEMINI II longevity.





EASY TO CARRY. EASY TO USE.

Sometimes it's okay to get attached quickly. Enjoying music at its finest is easier with Devialet Gemini's improved connectivity and usability: Bluetooth 5.2 with multipoint connection and auto switch between up to two devices, Google Fast Pair, new touch control customizations and battery life up to 22 hours.

Bluetooth 5.2. with multipoint connection.

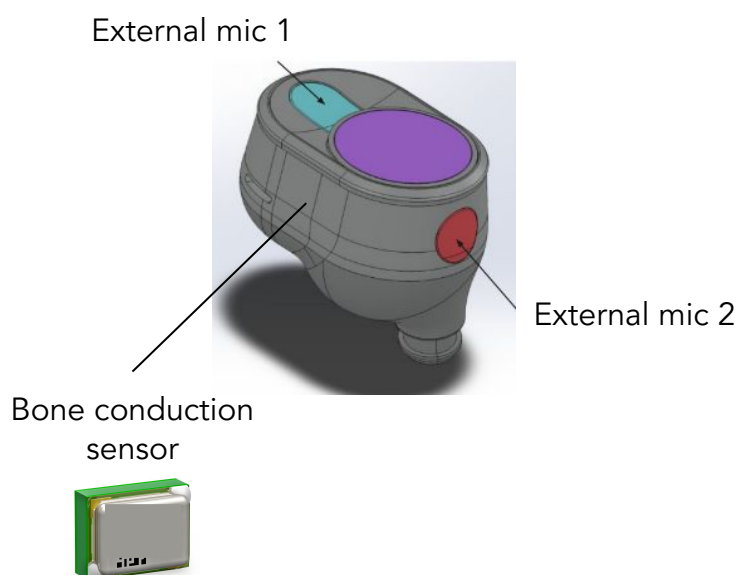
DEVIALET GEMINI II supports Bluetooth 5.2 wireless connectivity enabling the signal to remain clear and stable within a 20-meter radius.

The second-generation earbuds also offer multipoint connection and autoswitch. In other words, the user can connect their earbuds with up to two devices at once and the earbuds will intelligently switch devices. This way, the user could listen to music on their laptop and take an incoming call on their phone seamlessly.

Reengineered voice-call architecture.

DEVIALET GEMINI II's voice-call architecture was redesigned to focus on voice intelligibility and keep conversations crystal-clear even in windy conditions.

With the new patented AWR (Active Wind Reduction) technology, the earbuds will automatically reduce wind noise. A new bone conduction voice sensor will improve voice pick-up, allowing the call to stay clear of the surrounding noise. Additionally, beamforming microphones will capture the voice without picking up ambient sound while advanced voice post-processing algorithms will clear the signal from any unwanted noise.



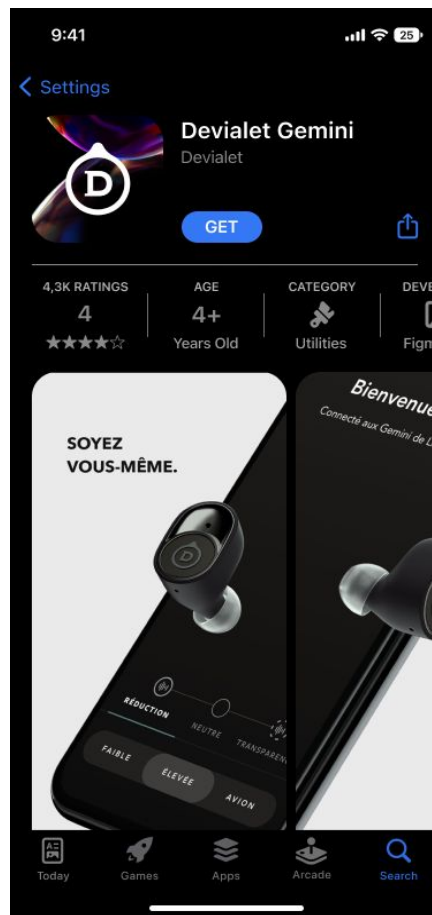
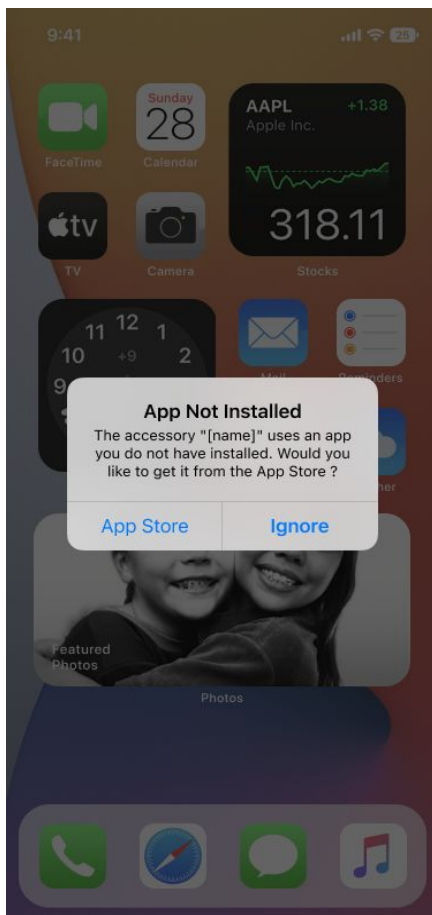
A refined user experience with fast pairing.

DEVIALET GEMINI II is now compatible with Google Fast Pair*, which greatly simplifies the Bluetooth connection and pairing process. The cutting-edge Google protocol enables Android users to seamlessly set up their earbuds with a single tap without having to fumble through the Bluetooth settings. It also offers to download the Devialet Gemini App from the Play Store.



The second-generation earbuds also come with iOS App Match, offering iOS users to download the Devialet Gemini App directly via a pop-in, without having to search for the app in the App Store.

iOS App match



*Google Fast Pair is now being certified and will be available in the near future.

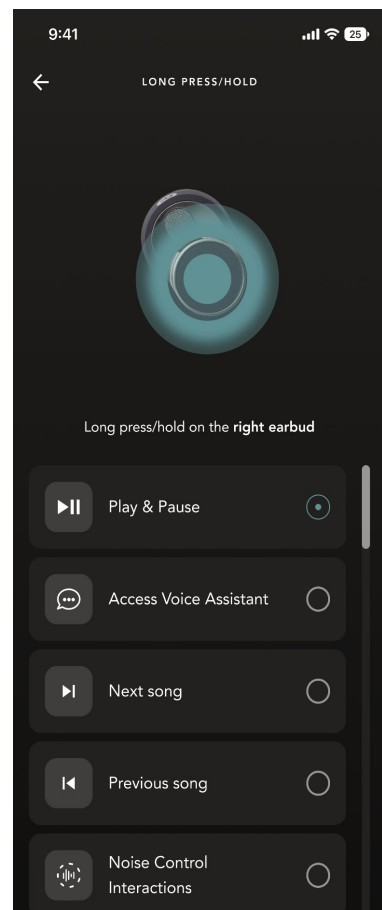
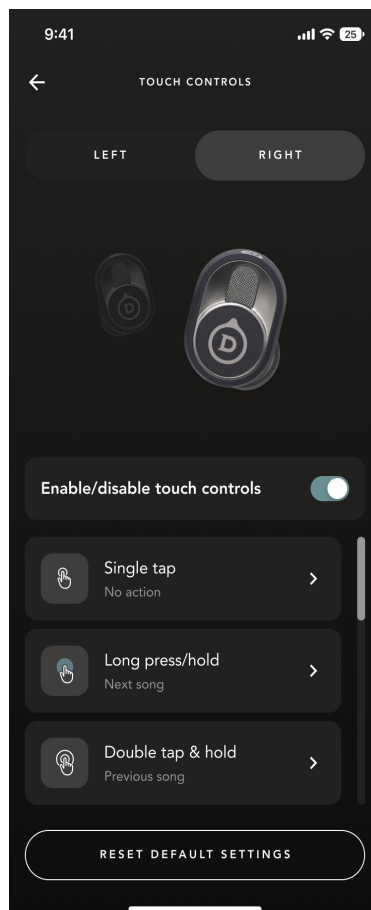
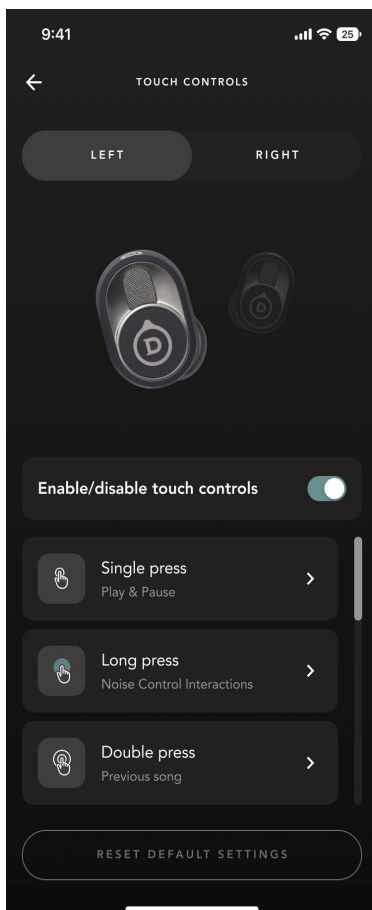
Additional touch gestures and customization.

DEVIALET GEMINI II offers several touch gestures that are directly available on the earbuds capacitive panel (in orange below) delivering effortless usability.



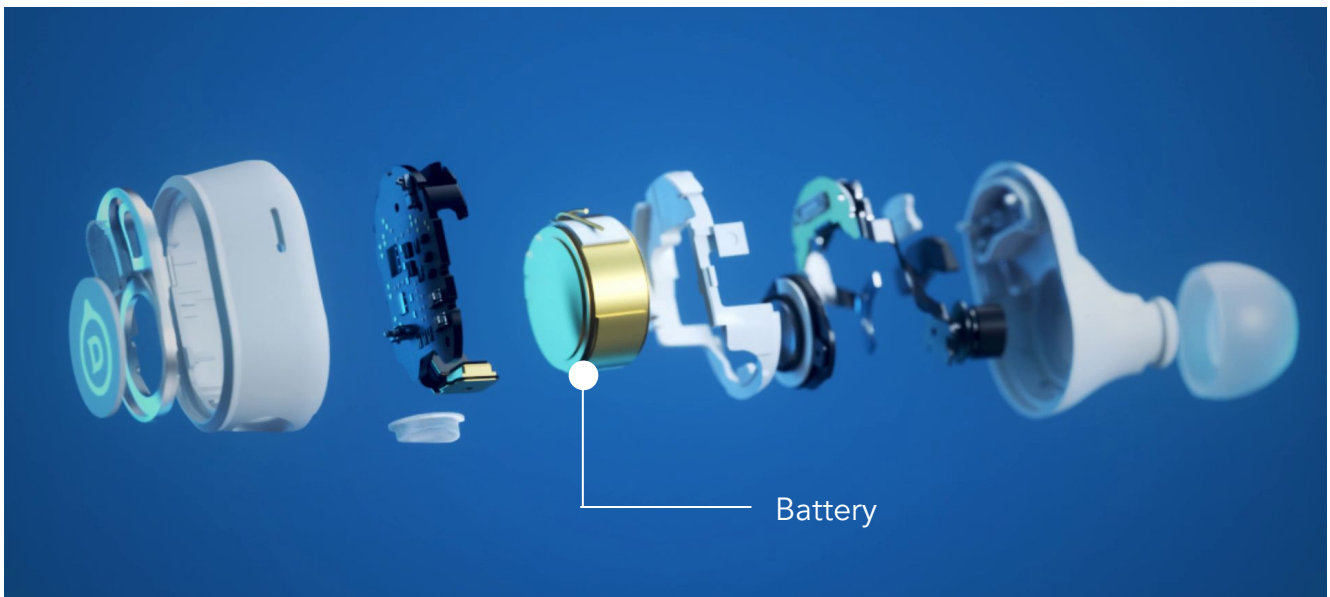
- Press to Play or Pause.
- ▬ Press and hold to switch between Adaptive Noise Cancellation™ and Transparency modes.
- Double-press on the left earbud for previous track or right earbud for next track.
- ▬ Double-press and hold on the left earbud to decrease volume or right earbud to increase volume.
- In a phone call:
 - Double-press to answer or hang-up a call.
 - ▬ Press and hold to reject an incoming call.

To enable users to design their own customized experience, these touch gestures are fully customizable within the Devialet Gemini App for right and left earbuds.



Up to 22 hours of autonomy.

DEVIALET GEMINI II boasts up to 22 hours of battery life with the charging case and up to 5 hours of autonomy with a single charge with the earbuds.



The second-generation earbuds also feature Wireless Charging capabilities thanks to their Qi compatibility to recharge wirelessly.



Devialet Gemini App.

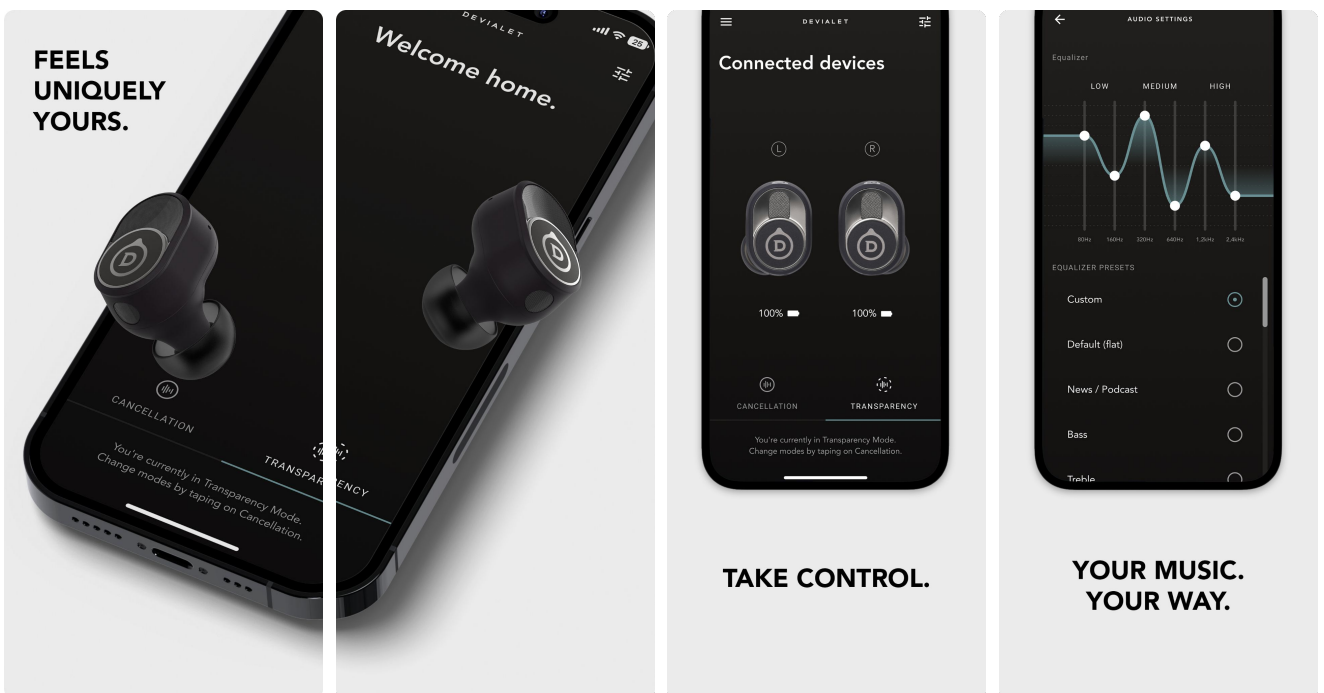
DEVIALET GEMINI II has the same dedicated application than the first-generation earbuds to control and customize the user experience. It is not essential to use the application but it introduces a panel of functionalities as well as access to software updates.

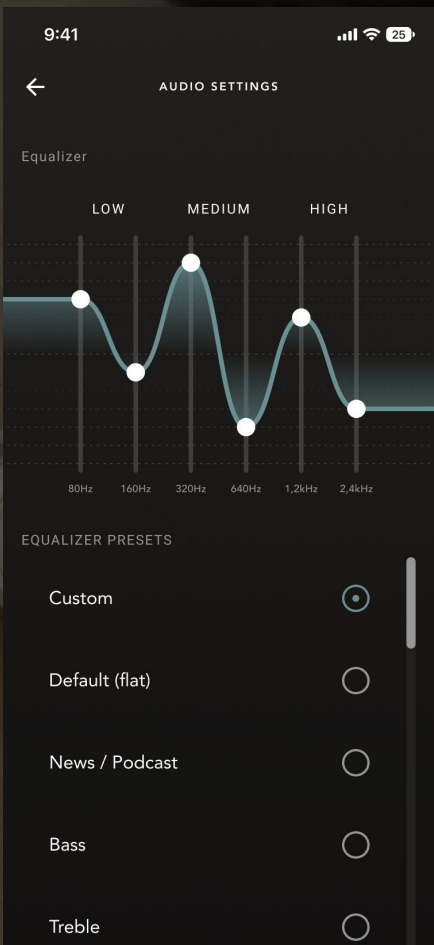
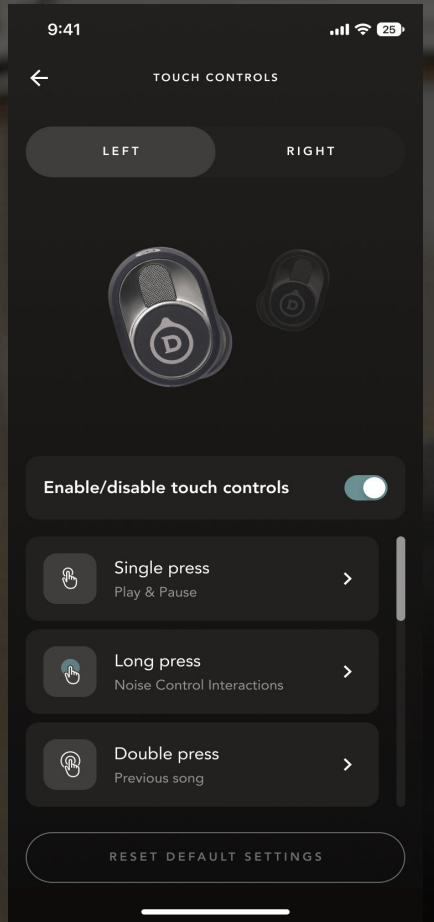
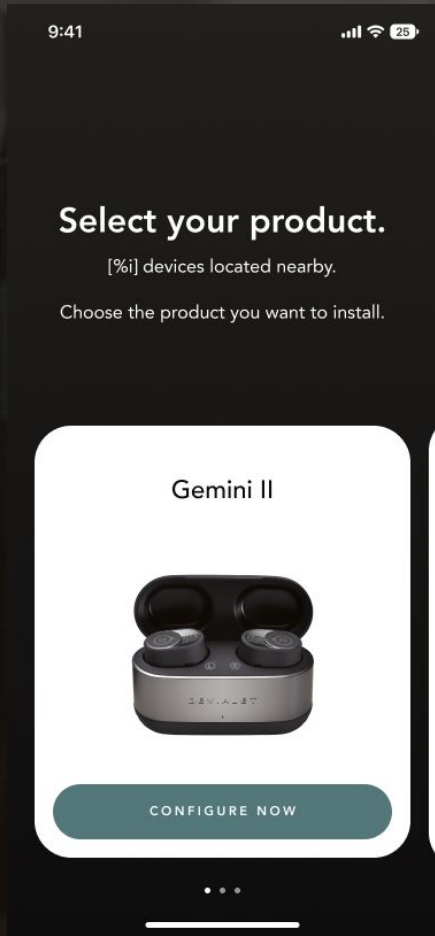
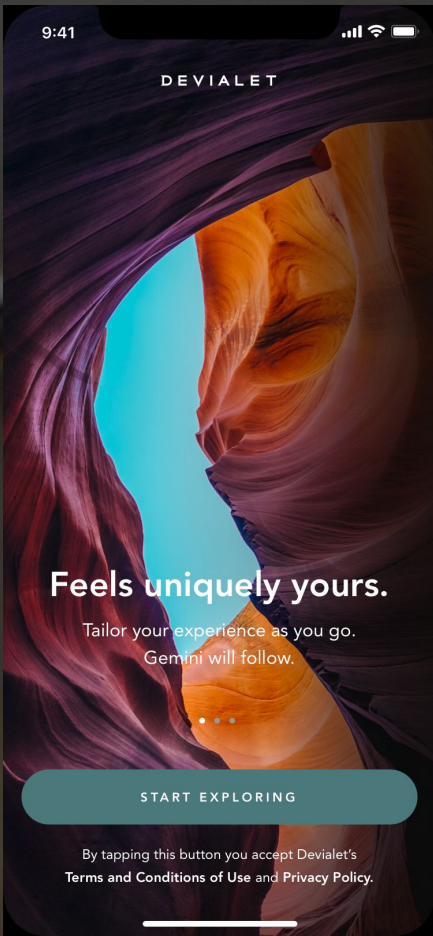
The Devialet Gemini App offers navigation between the Adaptive Noise Cancellation and Transparency modes and access to battery levels directly from the home screen.

The application also provides access to a customizable 6-band equalizer, with the choice of amplifying or attenuating sounds between 6 dB and -6 dB, in 0.5 dB steps. The EQ also comes with 6 pre-selected settings including a Bass, Mid, Treble or Podcast mode.

Finally, the Devialet Gemini App allows the users to configure touch controls, as mentioned above and deactivate Smart pause (stop playback when an earbud is out) as well as multipoint automatic connection.

The app is available via Google Play for Android users and App Store for iOS users.







Design and finishes.

The second-generation earbuds boast the same soft touch and iconic shape, but in a more compact and versatile design. Their form factor has been optimized to fit any ear and microphones are more seamlessly encapsulated inside the earbud. Additionally, the charging case now features a flip top for instant access.

DEVIALET GEMINI II comes in Matte Black et Iconic White editions so that customers can now choose high-end wireless earbuds to suit their style. As part of our partnership with the Paris's Opéra Garnier, we've also created a gold-plated edition made of 24-carat gold completing Devialet's full product range.

● MATTE BLACK

*Polymer body
Metallic coating*



○ ICONIC WHITE

*Polymer body
Metallic coating*

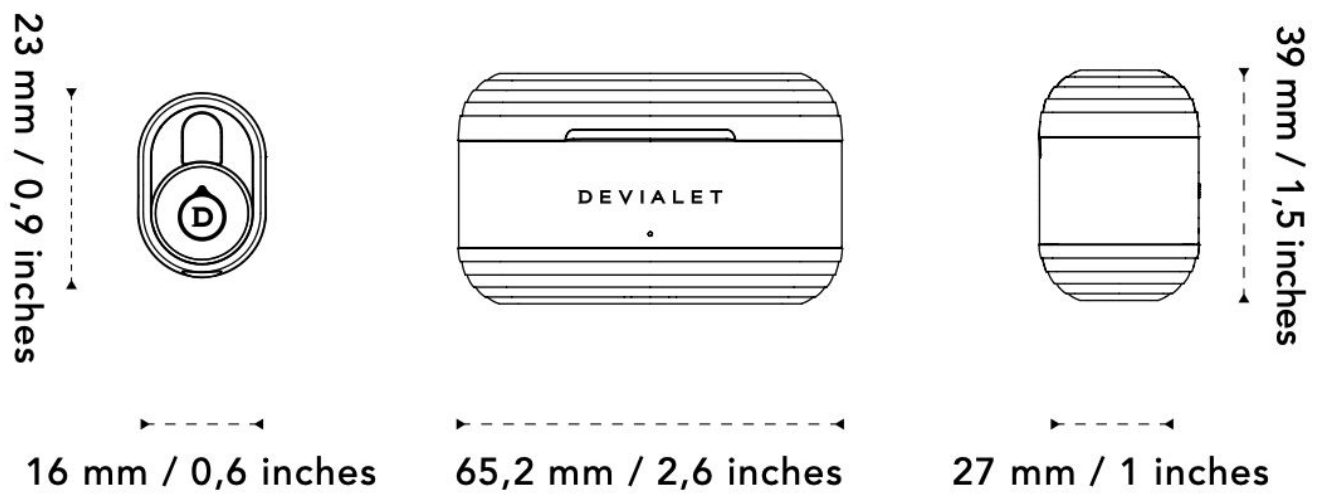


● OPÉRA DE PARIS

*Polymer body
24-carat PVD Gold plating*



Dimensions.















(IM)PERMEABLE SOUND

Introducing Devialet Gemini II, the second-generation of true wireless earbuds delivering the best of sound, in all its dimensions. Transforming fifteen years of acoustics R&D and engineering into a portable design you can enjoy on the move.

LATEST TECHNOLOGIES

-  **Devialet Adaptive Noise Cancellation™ and Transparency Mode**
-  **Active Wind Reduction: automatically reduces wind noise for optimal music listening, voice call quality and everyday comfort.**
-  **10 mm high-sensitivity driver topped with titanium coating for optimal audio rendering**

MOVE FREELY

-  **Up to 22 hours of battery life. Up to 5 hours of listening time on one charge.**
-  **Wireless Charging**
-  **Bluetooth® 5.2 with multipoint**
-  **Clear hand-free voice call**
-  **IPX4 water and sweat resistant**



GEMINI II : TRUE WIRELESS EARBUDS WITH ADAPTIVE NOISE CANCELLATION

SPEC SHEET 1/2

PROPRIETARY AUDIO TECHNOLOGIES	
DEVIALET ADAPTIVE NOISE CANCELLATION™ & TRANSPARENCY	Devialet proprietary technology Dual microphone Noise Reduction system Up to 40dB of Noise Cancellation
HIGH EXCURSION DEVIALET DRIVER	Custom made 10 mm high-sensitivity driver topped with titanium coating
AWR (ACTIVE WIND REDUCTION)	Automatically reduces wind noise for optimal music listening, voice call quality and everyday comfort.
KEY PERFORMANCES	
SOUND PRESSURE LEVEL	120 dB SPL
FREQUENCY RESPONSE	5Hz - 20kHz
AMPLIFICATION PERFORMANCE	THD+N* < 0.1% (measured for 100 dB SPL @1 kHz) (*Total Harmonic Distortion + Noise)
FEATURES	
WIRELESS CONNECTIVITY	Bluetooth 5.2
MULTIPOINT	Up to 2 devices simultaneously
BLUETOOTH CODECS	AptX, AAC, SBC
SENSORS	External and internal microphones Bone-conduction voice sensor Infrared sensor Capacitive touch
MOBILE APP	Devialet Gemini app (iOS & Android)

GEMINI II : TRUE WIRELESS EARBUDS WITH ADAPTIVE NOISE CANCELLATION

SPEC SHEET 2/2

	SPECIFICATIONS
SIZE (W x H x D)	<p>Earbuds Width: 16 mm Height: 23 mm Depth: 26 mm</p> <p>Charging case Width: 65 mm Height: 39 mm Depth: 27 mm</p>
WEIGHT	<p>Earbuds: 6 g (per earbud)</p> <p>Charging case: 49 g</p>
MATERIALS	<p><u>Earbuds:</u> Polymer Body Metallic coating Silicone Ear tips</p> <p><u>Charging case:</u> Polymer External skin and interior Chamber Metallic coated central plate 24-carat Gold plating (exclusive to the Opéra de Paris edition)</p>
COLOR & FINISHES	Matte Black. Iconic White. Opéra de Paris.
DURABILITY RATING	IPX4 rain and sweat resistant
BATTERY PLAYTIME	<p>Up to 22 hours with the charging case</p> <p>Up to 5 hours of listening time on one charge</p>
CHARGING CASE	Works with Wireless Qi-certified chargers or the USB-C connector
	WHAT'S IN THE BOX
	<p>Devialet Gemini II earbuds</p> <p>Wireless charging case</p> <p>USB-C charging cable</p> <p>Set of eartips with 4 sizes (XS/S/M/L) with M size mounted on the earbuds</p> <p>Documentation</p> <p>Product pouch (exclusive to the Opéra de Paris edition)</p>

