

A close-up, profile view of a woman with blonde hair, looking upwards and to the left. She is wearing a black earbud in her right ear. The background is softly blurred, suggesting an indoor setting with natural light.

Qualcomm

**The State of Sound:
Soundbites**
An Introduction to Spatial Audio

An Introduction to Spatial Audio

Our latest [State of Sound](#) research indicates that consumers are becoming more knowledgeable about spatial audio, are actively seeking the feature, and would be willing to pay more for devices that support it. This introduction explains how spatial audio can enhance the listening experience across music, games and movies, and looks at the increasing consumer demand for technology.

What is spatial audio?

Spatial audio, often known as 3D audio, allows the user to fully immerse themselves in a virtual three-dimensional space. Most smartphones can stream spatial audio, but more content must still be produced, and new technologies must be considered if spatial audio is to be fully utilized for streaming music, films, games, and other types of content; for example—in the headphones/true wireless categories—spatial audio with head-tracking for complete surround-sound immersion.

What's the difference between static spatial audio and dynamic spatial audio?

With traditional, static spatial audio, streams stay in place as you turn your head. Streams on the right will remain on the right, while those on the left stay on the left. This is because spatialization effects are added without headtracking, meaning that the audio is locked into a location. When listening to this type of spatial audio, you'll get some feeling that the sound is closer or further away.

Dynamic spatial audio takes things a step further by adding headtracking, which provides a much more immersive experience. For example, if you move your head to the right side of the sound field, the audio will rotate to the left by an equal amount—the mix of information going to each ear changes depending on your head position. As you move, it fills different parts of the full surround sound experience—meaning you will completely be immersed in a full 360-degree sound field.

To get the benefits of spatial audio, songs, games, movies and other media and shows must still support 5.1, 7.1, or Dolby Atmos formats to experience either static or dynamic spatial audio content.

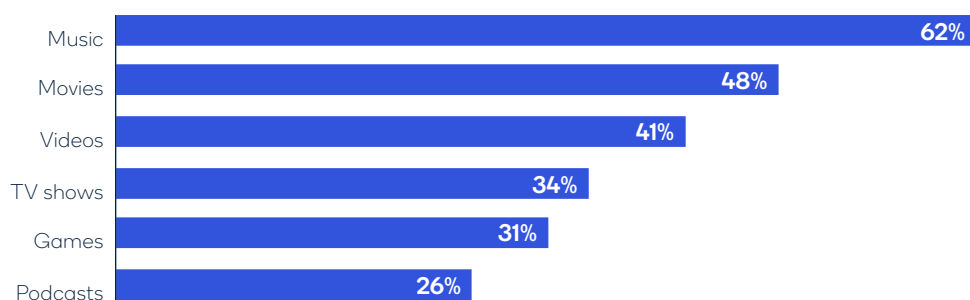
How will spatial audio change my listening experience?

Spatial audio adds a level of immersion to a soundscape which cannot be replicated by any other technology. It adds a sense of realism and immersion, bringing a listener to another place or time. It can enhance the sense of atmosphere, drama or tension.

In our The State of Sound Report 2022, respondents shared which types of content they are most excited to experience spatial audio with.

Listeners are interested in spatial audio for a wide range of content and use cases, from gaming, to music. This indicates that consumers not only recognize what spatial audio is, but now value the positive impact it can have on their overall listening experience across a wide range of media.

Most desired spatial audio content for earbuds/headphones



Several market segments are striving to integrate spatial audio into a variety of multimedia forms.



The **music industry** is producing content to enhance the listening experience for fans of their favorite musicians, enabling more realistic virtual concert experiences.



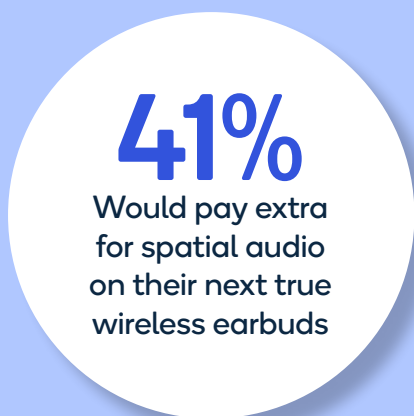
Spatial audio is being used by **film** producers to create more immersive soundscapes, especially for home theater systems.



By integrating headtracking to offer spatial audio that moves with the player as they explore **virtual worlds**, gaming content providers are using spatial audio to create more immersive gameplay, especially in VR.

How are consumers responding to spatial audio?

Most smartphones can stream spatial audio, but more content must still be produced, and new technologies must be considered if spatial audio is to be fully utilized for streaming music, films, games, and other types of content. It is clear from our 2022 State of Sound research that consumers are ready for the capabilities and innovations that spatial audio can bring to their audio experiences.

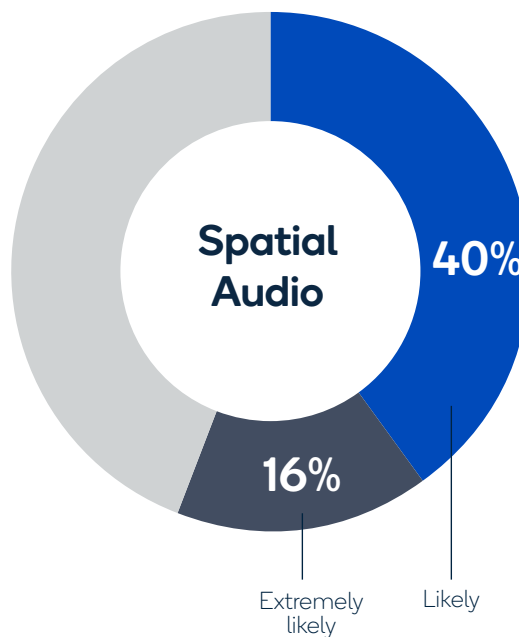


73% of respondents are aware of spatial audio, while 34% of respondents are quite familiar with the feature.

Consumers now recognize how spatial audio can enhance their audio experiences, with 41% of respondents indicating that they would pay more to have spatial audio capabilities in their next true wireless earbuds; along with 56% saying that having spatial audio in their next true wireless earbuds would influence their purchase.

Next True Wireless Earbud purchase influenced by spatial audio

More than half claimed spatial audio support is likely to influence their next True Wireless Earbud purchase decision



Spatial audio has the potential to change the way we consume audio content across virtually all media. As we see streaming services and content creators rapidly adopt the technology, alongside advancements such as dynamic spatial audio—the way we immerse ourselves in sound is set to change forever.



Want to learn more about the latest audio trends defining the future of sound?



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