

An introduction to Bluetooth LE Audio

What is Bluetooth LE Audio?

A new age of Bluetooth® technology is here. With the latest LE Audio specification, the way we experience audio is set to evolve. From Auracast™ broadcast audio and hearing assistance, to new use cases that have not been imagined yet, LE Audio has rekindled innovation in wireless audio and will be setting the stage for the next 20 years of innovation in the space.

What's the difference between LE Audio and Classic Audio?

LE Audio extends the capabilities of Bluetooth technology beyond those of Classic Audio use cases. LE Audio will support voice calls and music streaming applications, while expanding the experiences that wireless audio devices can deliver.

LE Audio not only supports development of the same audio products and use cases as Classic Audio, but it also supports improved audio quality, reduced power consumption, improved interoperability, easier development of hearing aids and true wireless (TWS) earbuds, new audio device types, and the emergence of Auracast[™] broadcast audio.

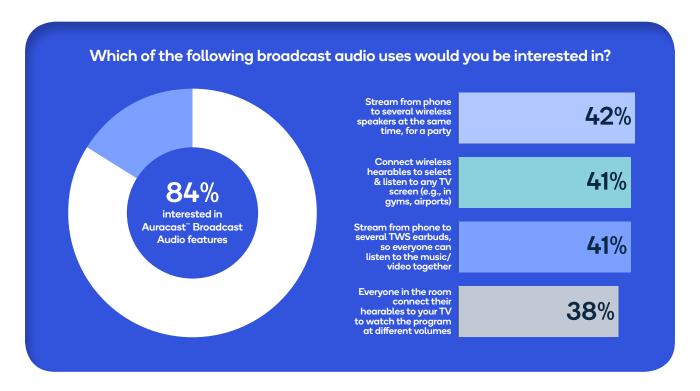
As the market adopts LE Audio, we will continue to see 'dual mode' devices supporting both LE Audio and Classic Audio capabilities, allowing LE Audio capabilities to innovate and evolve without disrupting the Classic Audio user experience.

What can you do with Bluetooth LE Audio?

Auracast[™] Broadcast Audio

With Auracast[™] Broadcast Audio, users will be able to share music with many Bluetooth speakers or headsets, so friends and family can share the same experiences. With LE Audio's broadcast capabilities, audio transmitters can broadcast one or several audio streams to an unlimited number of Auracast[™] receivers, such as headsets and hearing aids.

Our respondents in The State of Sound Report 2022 showed significant interest in the use cases of Auracast[™], including broadcasting to multiple devices for personal audio sharing and location-based audio sharing in airports, gyms, and other public venues.



Multi-Stream audio

Another key differentiator for LE Audio vs. Classic Audio is Multi-Stream Audio. Classic Audio is known as 'single stream', where one source device (e.g. a smartphone), can connect to one 'sink' device (headphones, true wireless earbuds). Using this new Multi-Stream audio feature, developers can improve the performance of truly wireless earbuds, including a better stereo imaging experience, more seamless voice control services, and smoother switching between multiple audio source devices. Multi-Stream audio enables multiple streams to be established so that one sink sends synchronized streams independently to left and right earbuds.

Respondents of The State of Sound 2022 report showed interest in the capabilities of Multi-Stream audio, from streaming audio to several wireless devices at the same time, to connecting multiple devices to the same audio source.

Market anticipation for Bluetooth LE Audio

Consumers are ready for LE Audio

Our latest <u>The State of Sound Report</u> shows high levels of interest and awareness in LE Audio, with 75% of respondents stating they were aware of this technology, and over 40% considering themselves knowledgeable. This is surprisingly high for a technology that hasn't yet become widely available and indicates significant anticipation from consumers.

1.5B

Annual shipments of Blutooth® peripheral audio devices in 2027

Source: ABI Research

With consumers already aware of LE Audio, and excited for the capabilities it can enable, just how far away are we from mass market adoption? A recent study from the Bluetooth Special Interest Group found that there will be over 3 Billion LE Audio device shipments annually by 2027, including 1.5 billion peripheral audio devices.

As for use cases and capabilities, LE Audio has been designed with a view of creating something that will not only serve the market needs of Bluetooth technology from the last 20 years, but can also serve to fulfil the needs, advancements, and evolutions of the next 20.

"The potential for this new technology and the use cases it enables are really only limited by the imagination of developers."

- Ken Kolderup, Chief Marketing Officer, Bluetooth Special Interest Group

Whether you are using your headphones, listening to a keynote speaker in a different language, connecting to the TV in your local gym, or using a Bluetooth hearing aid to help with audio while at an airport, LE Audio capable devices and technologies will be at the heart of Bluetooth connectivity for years to come.

Qualcomm

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