

Exhibit 7

8,582,789

13. A hearing enhancement apparatus for a user, the apparatus being wirelessly coupled to an audio system, which is configured to up-convert input signals into up-converted signals to be wirelessly transmitted, the apparatus comprising:

A hearing enhancement apparatus for a user, the Bose QuietComfort Ultra Earbuds, wirelessly coupled to an audio system, such as an Android phone, which is configured to up-convert input signals into up-converted signals to be wirelessly transmitted.

https://www.bose.com/p/earbuds/bose-quietcomfort-ultra-earbuds/QCUE-HEADPHONEIN.html?dwvar_QCUE-HEADPHONEIN_color=MOONSTONE+BLUE&quantity=1

Sound just got real

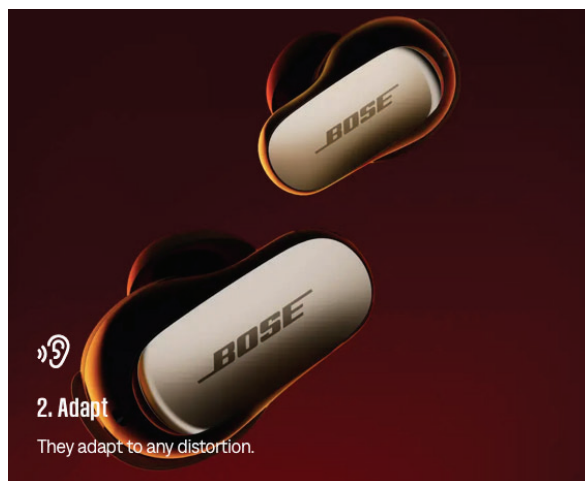
These spatial audio earbuds with Bose Immersive Audio push the boundary of what it means to listen. So you get music that sounds realer than ever before.

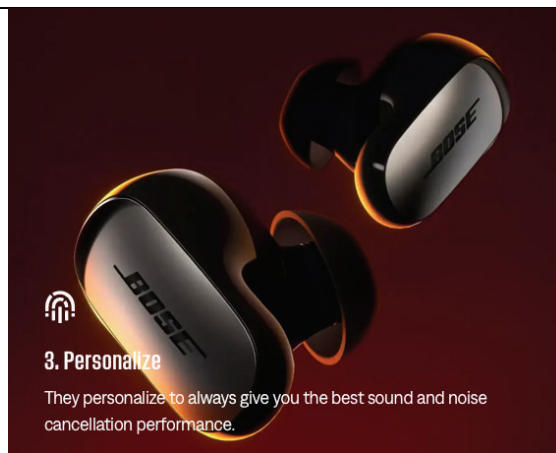


<https://www.bose.com/pxp/bose-quietcomfort-ultra-earbuds>:

World-class noise cancellation

Quiet when you want it. Awareness when you
need it.





On information and belief, the Android phone up-converts received input signal into an up-converted signals to be wirelessly transmitted.

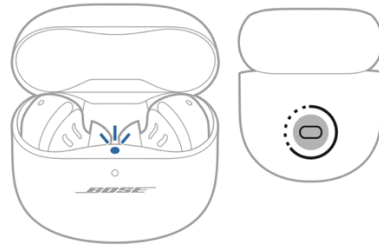
<https://archive.org/details/electroniccommun0000toma/mode/1up> (Tomasi, W. (2001). Electronic communications systems: fundamentals through advanced (4th edition). Prentice Hall. P. 4):

	FIGURE 1-2 Communications system block diagram interfere with each other. For example, all commercial FM stations broadcast voice and music signals that occupy the audio-frequency band from approximately 300 Hz to 15 kHz. To avoid interfering with each other, each station converts its information to a different frequency band or channel. The term <i>channel</i> is often used to refer to a specific band of frequencies allocated a particular service. A standard voice-band channel occupies approximately a 3-kHz bandwidth and is used for transmission of voice-quality signals; commercial AM broadcast channels occupy approximately a 10-kHz frequency band, and 30 MHz or more of bandwidth is required for microwave and satellite radio channels. Figure 1-2 is the simplified block diagram for an electronic communications system showing the relationship among the modulating signal, the high-frequency carrier, and the modulated wave. The information signal (sometimes called the intelligence signal) combines with the carrier in the modulator to produce the modulated wave. The information can be in analog or digital form and the modulator can perform either analog or digital modulation. Information signals are <i>up-converted</i> from low frequencies to high frequencies in the transmitter and <i>down-converted</i> from high frequencies to low frequencies in the receiver. The process of converting a frequency or band of frequencies to another location in the total frequency spectrum is called <i>frequency translation</i>. Frequency translation is an intricate part of electronic communications because information signals may be up- and down-converted many times as they are transported through the system called a channel. The modulated signal is transported to the receiver over a transmission system. In the receiver the modulated signal is amplified, down-converted in frequency, then demodulated to reproduce the original source information.
a wireless receiver configured to wirelessly receive the up-converted signals;	The Bose QuietComfort Ultra includes a wireless receiver to wirelessly receive the up-converted signals. https://assets.bose.com/content/dam/Bose_DAM/Web/consumer_electronics/global/products/headphones/qc-ue-headphonein/pdf/885502_OG_QCUE-HEADPHONEIN_en.pdf: BLUETOOTH CONNECTIONS You can connect the earbuds to your mobile device using the Bose app, the <i>Bluetooth</i> menu on your device, or Fast Pair (Android devices only). You can store up to six devices in the earbud mobile device list, and the earbuds can be actively connected to up to two mobile devices at a time (multi-point connection). You can play audio from only one mobile device at a time. NOTES: • For the best experience, use the Bose app to set up and connect your mobile device (see page 13). • For information about connecting using Fast Pair, see page 46. CONNECT USING THE BOSE APP To connect the earbuds and manage <i>Bluetooth</i> settings using the Bose app, see page 13.

CONNECT USING THE BLUETOOTH MENU ON YOUR MOBILE DEVICE

1. With the earbuds in the charging case and the case open, press and hold the button on the back of the case until the earbuds status light slowly blinks blue.

NOTE: Make sure both earbuds are in the case and the case is open.



BLUETOOTH CONNECTIONS

2. On your device, enable the *Bluetooth* feature.

NOTE: The *Bluetooth* feature is usually found in the Settings menu.

3. Select the earbuds from the mobile device list.

NOTE: Look for the name you entered for your earbuds in the Bose app. If you didn't name your earbuds, the default name appears.



a down-converter configured to down-convert the received up-converted signals into down-converted signals;

On information and belief, the Bose QuietComfort Ultra includes a down-converter that converts the received up-converted signals into down converted signals.

https://www.bose.com/p/earbuds/bose-quietcomfort-ultra-earbuds/QCUE-HEADPHONEIN.html?dwvar_QCUE-HEADPHONEIN_color=MOONSTONE+BLUE&quantity=1:

Sound just got real

These spatial audio methods with Bose Immersive Audio push the boundary of what it means to listen. So you get music that sounds realer than ever before.



What is Bose Immersive Audio?

Immersive Audio allows you to hear audio as if it were coming from beyond your QuietComfort Ultra Earbuds, thereby allowing for a more spacious, natural listening experience. Your music and other audio will have a wide sound stage in front and to the sides, just as if you were listening to a pair of stereo speakers and seated at the sweet spot between them.

Welcome to the acoustic sweet spot

What you're hearing is placed just in front of you, so it seems like you aren't listening with earbuds at all.

	Breakthrough spatialized audio for more immersive listening that makes your music feel realer than ever before — no matter the content or source. World-class noise cancellation and sound tailored to you. And a design that feels so good to wear. Say less. (Listen more.) QuietComfort Ultra Earbuds are the ultimate wireless noise cancelling earbud experience. Bose Immersive Audio pushes the boundary of what it means to listen by taking what you're hearing out of your head and placing it in front of you. It sounds so real it's almost like you could reach out and touch it.
a modifier configured to modify the down-converted signals into modified signals based on at least one hearing characteristic of the user to enhance the hearing of the user; and	The Bose QuietComfort Ultra includes a modifier that modifies the down-converted signals into modified signals based on at least one hearing characteristic of the user to enhance the hearing of the user. https://www.bose.com/p/earbuds/bose-quietcomfort-ultra-earbuds/QCUE-HEADPHONEIN.html “Bose QuietComfort Ultra Earbuds Everything tailored to you CustomTune tech analyzes your ears, adapts to the shape, and auto-adjusts to personalize the sound and noise cancellation.” https://www.bose.com/stories/how-personalized-earbuds-give-you-best-sound-and-fit “One of the primary upgrades of the QuietComfort Earbuds II is Bose’s CustomTune technology, which calibrates sound in a new way. When the earbuds are placed in your ear, a chime is played. The microphone inside the earbud measures the sound in your ear canal and adjusts it to create a perfectly balanced sound for your own eardrums. CustomTune technology also compensates for the differences in individual ears, as the left and right are not identical in shape, size, and condition. The result is truly personalized sound balance.

	CustomTune technology doesn't just benefit what you hear, it also helps with what you don't by personalizing the noise cancellation to the shape of your ears. This will precisely soften sounds that are hardest to reduce, like voices." https://www.nextpit.com/bose-quiet-comfort-2-anc-wireless-earbuds "Alongside the redesigned buds, Bose is debuting their Custom Tune feature with the QuietComfort Earbuds II. The technology is based on the brand's Sound Control for hearing aids. The feature works first by learning the user's unique ear canal structure before automatically adjusting the noise cancellation level and audio output." https://www.engadget.com/bose-quiet-comfort-earbuds-2-announced-price-specs-001640277.html "Inside, the QuietComfort Earbuds II are equipped with what Bose calls CustomTune sound calibration. The technology has been available on the company's SoundControl hearing aids, but in this case it's used to improve a bunch of core earbud features. By measuring the acoustic properties of your ear canal, Bose says CustomTune tailors both the audio and the active noise cancellation (ANC) to you... The company further explains that CustomTune 'fully optimizes the sound frequency profile to the unique properties of every ear, so the sound that reaches the eardrum is just as the artist intended.'" https://www.bayaudiology.co.nz/hearing-health-blog/noise-cancelling-headphones: Many people also wonder, are noise-cancelling headphones bad for tinnitus? The good news here is that noise-cancelling headphones are not bad for tinnitus, despite receiving some bad press in recent times. In fact, as noise-cancelling headphones reduce low-frequency background noise, people can better hear what they are playing, making them potentially less likely to turn up the volume to damaging levels – and thus may even help prevent tinnitus (which can be caused by constant exposure to noise, especially high-pitched tones).
a speaker configured to generate audio output signals from the modified signals for the user.	The Bose QuietComfort Ultra includes a speaker to generate audio output signals from the modified signals for the user. https://www.bose.com/p/earbuds/bose-quietcomfort-ultra-earbuds/QCUE-HEADPHONEIN.html?dwvar_QCUE-HEADPHONEIN_color=MOONSTONE+BLUE&quantity=1:

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