New Qualcomm chips pack high-end features for lower-cost earbuds

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Qualcomm is getting ready to usher in a new generation of super low-power Bluetooth earbud chips.

The QCC514X and the QCC304X will support Qualcomm's TrueWireless Mirroring technology. This means that wireless connectivity is secured with a single earbud that is paired with another. When the user removes the primary earbud, the other mirroring bud

takes over the connection without any interruption.

The units will also support active noise control, or noise cancellation, bringing the popular feature commonly found on high-end units to mid-priced and entry-level buds. Qualcomm says its hybrid ANC feature allows for ambient noise leak-through that allows substantial but not total external noise suppression. That makes it easier for users to speak with others while wearing the buds or to more easily hear car horns or alarms.

Battery life will be improved as well. Qualcomm's systems on a chip (SoC) will provide up to 13 hours of playback on earbud systems using a 65mAh battery, even with hybrid ANC always on. Qualcomm notes that the improved battery functionality allowed them to reduce the battery size and weight.

The chips offer voice assistant support, but the two models handle it differently. The QCC514X, like premium brands Apple AirPods and Beats by Dre, will have continuous wake-word listening enabled. Users can simply say "Hey Google" or "Alexa" to initiate a voice command.

The QCC304X, however, requires a button press to activate such commands.

The chips are designed so that a pair of buds shows up as only a single device occupying one address on Bluetooth devices.

Other manufacturers using Bluetooth SoCs include Apple and Samsung, which recently unveiled plans for its next generation earbud systems. Samsung's new all-in-one power management integrated circuits (PMIC) are designed for bud systems offering true wireless stereo. It will be unveiled in Samsung's Galaxy Buds+.

Ear buds have certainly come a long way since their inception, believe it

or not, 129 years ago. French engineer Ernest Mercadier patented the first in-ear "telephone receivers" for users of telephones that had begun entering homes the previous decade. Those first "receivers" were startlingly similar to today's ear pods, and, even more surprisingly, they offered a primitive form of noise cancellation.

The first headphones arrived in 1910. Engineer Nathaniel Baldwin invented them on his kitchen table and wound up making a fortune selling 100 units to the U.S. Navy. Sadly, Baldwin lost all his fortunes investing in a Mormon movement advocating that men be allowed to have multiple wives. He went bankrupt in 1924 and was imprisoned for mail fraud in 1930.

More information: www.qualcomm.com/news/releases … prove-truly-wireless

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