



Ultra-Low Power Bluetooth Low Energy Audio Solution with Integrated Flash

NXH3675

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The NXH3675 is Bluetooth® 5.3 LE audio certified and supports Auracast™. The Bluetooth audio chip enables HQ audio and supports multi-stream audio, including broadcast with scan and delegator features for audio sharing. Audio profiles like HA, TMAP and other standard profiles are also supported. It is a highly efficient chip designed to function with minimum power consumption and optimized for ultra-low latency applications.

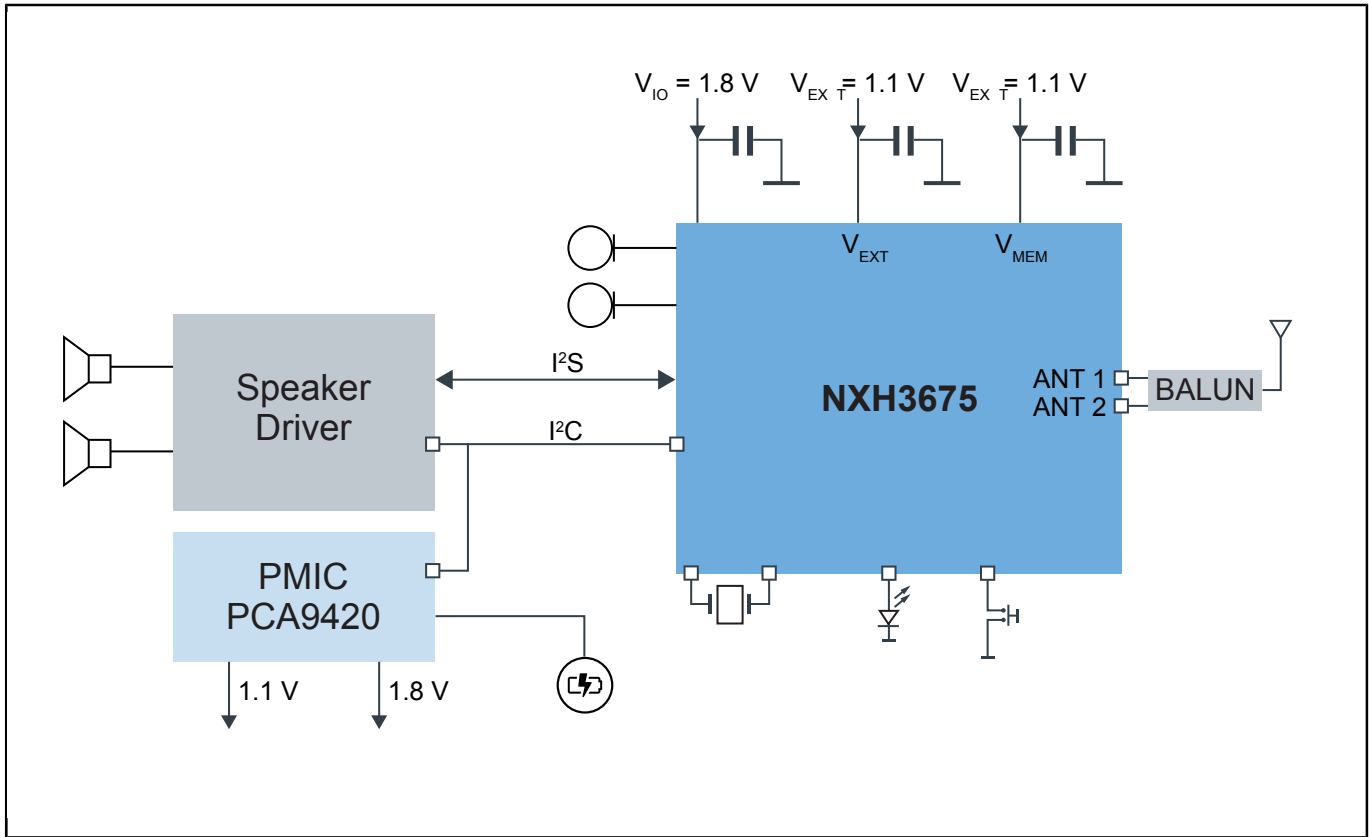
Due to the integrated ultra-low power radio and ultra-low power DSP processing capabilities, the NXH3675 provides exceptionally long battery life and the opportunity to build miniaturized small form-factor products.

The NXH3675 chip integrates the following key functionality:

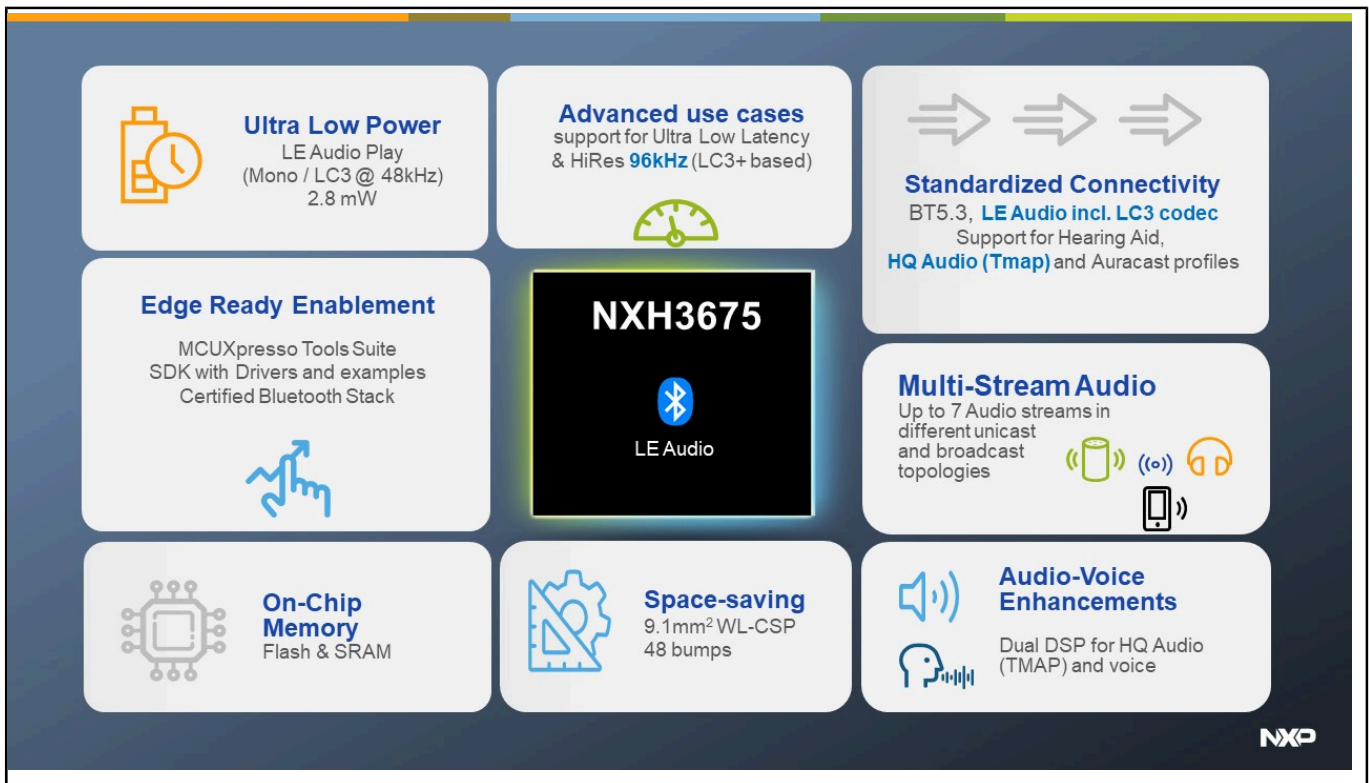
- Bluetooth 5.3 LE audio certified with Auracast in the 2.4 GHz radio band
- An Arm® Cortex®-M0+ for application control and Bluetooth Low Energy host stack
- A dedicated Arm Cortex-M0+ for supporting full-flexible software link-layer protocol up to the HCI level
- A dual CoolFlux® DSP for audio processing of the LC3 and LC3+ audio encoder/decoder as well as audio and voice enhancements such as EQ, compression, gain control and mixing
- A low-power 16 MHz/32 MHz crystal oscillator with integrated tuning caps and automatic frequency selection
- Integrated flash memory enabling autonomous operation or operation with a host MCU
- Multiple interfaces for control, data, debug and test
- Support for multiple digital PDM-based microphones
- Improves battery life with exceptionally low power consumption
- 20 mW power consumption for gaming headsets
- Includes NXP optimized protocol for ultra-low latency
- High integration enabling small application form factor

NXH3675 and enablement (documentation, software and boards) are available for select customers with an approved NDA. For additional information and sample availability, [contact support](#) or your local sales representative.

NXH3675 Headset Application Block Diagram



NXH3675 Features Block Diagram



View additional information for [Ultra-Low Power Bluetooth Low Energy Audio Solution with Integrated Flash](#).

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