



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

NXH3675

Last Updated: Dec 23, 2025

The NXH3675 is Bluetooth® 5.3 LE audio certified and enables 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.

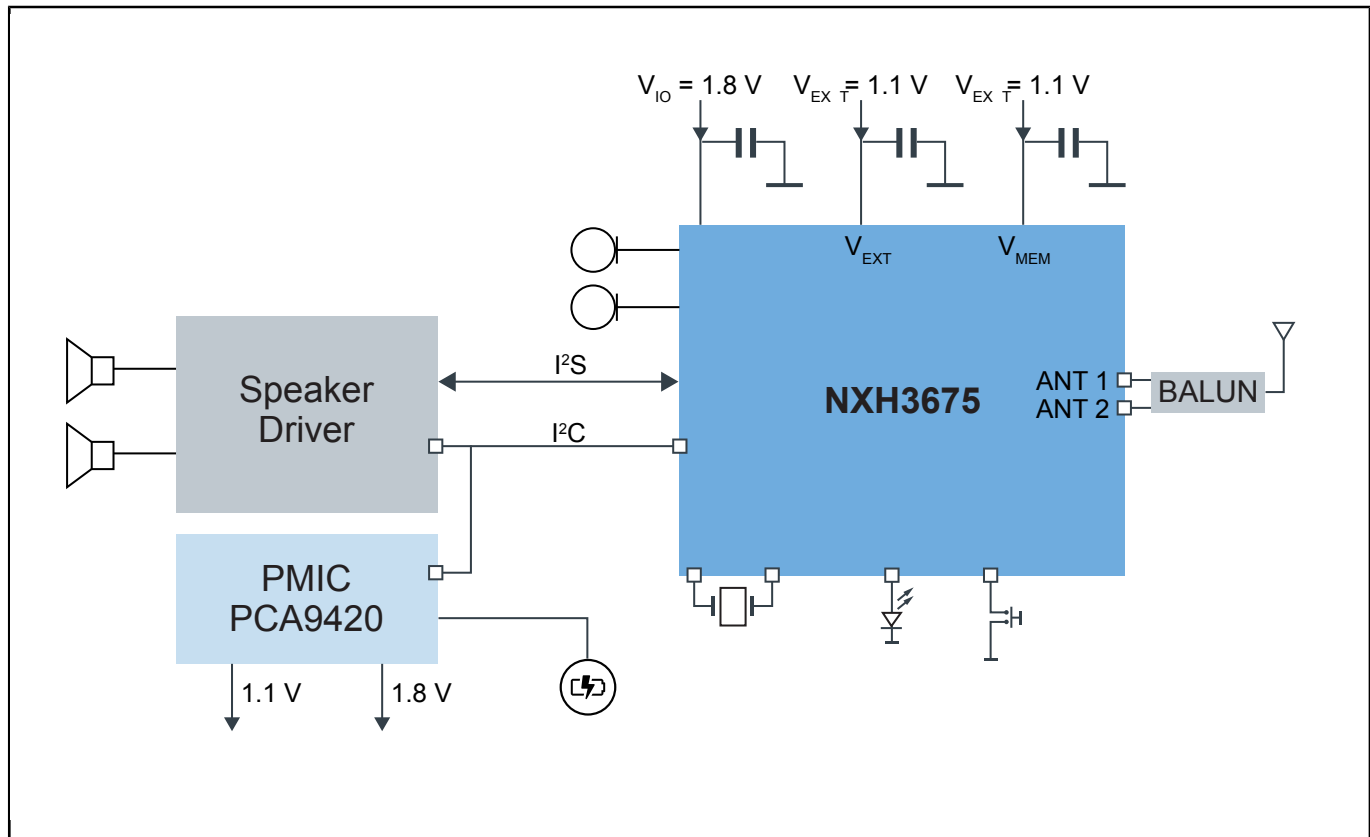
Due to the integrated ultra-low power radio and ultra-low power DSP processing capabilities, the NXH3675 provides exceptionally long battery life and the opportunity to build miniaturized small form-factor products.

The NXH3675 chip integrates the following key functionality:

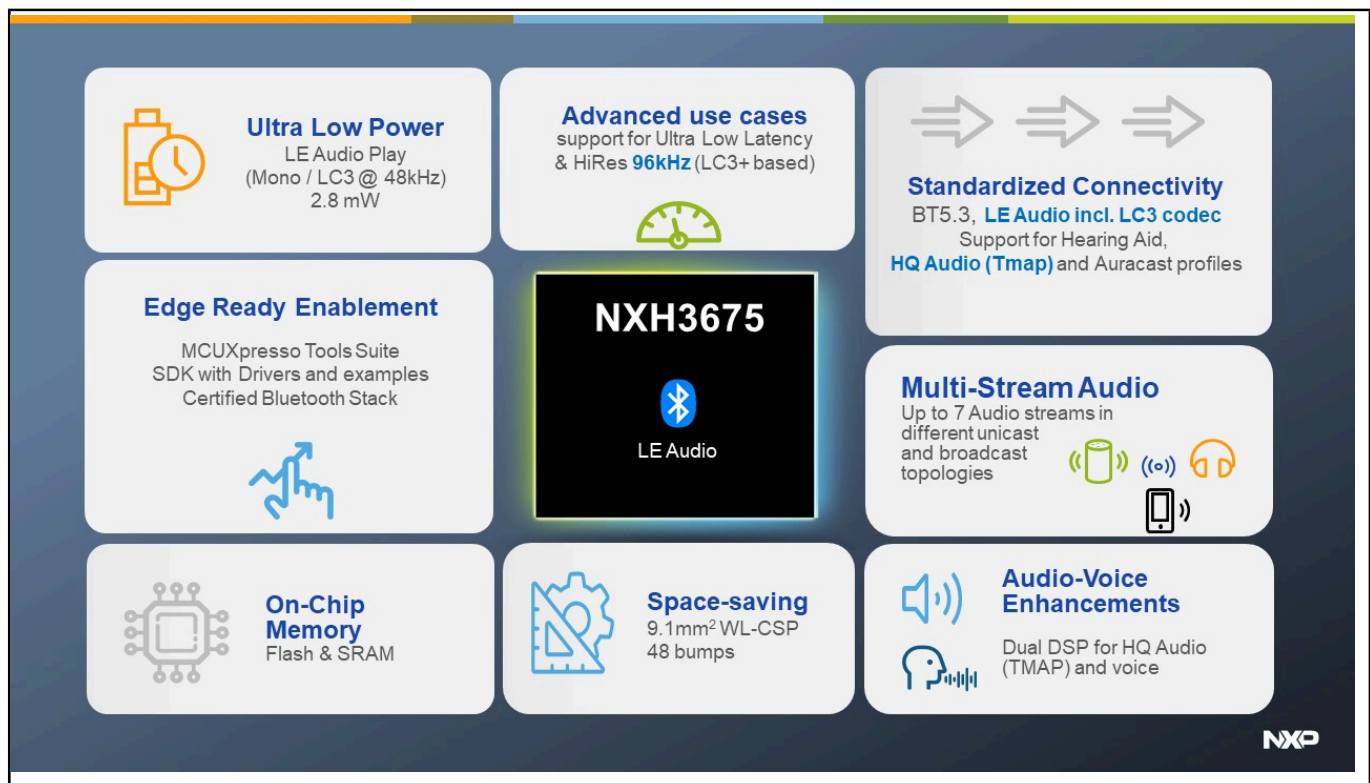
- LE Audio Certified and enables Auracast in the 2.4 GHz radio band
- An Arm® Cortex®-M0+ for application control and Bluetooth Low Energy host stack
- A dedicated Arm Cortex-M0+ for supporting full-flexible software link-layer protocol up to the HCI level
- A dual CoolFlux® DSP for audio processing of the LC3 and LC3plus 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](#).

Note: The information on this document is subject to change without notice.

www.nxp.com

NXP and the NXP logo are trademarks of NXP B.V. All other product or service names are the property of their respective owners. The related technology may be protected by any or all of patents, copyrights, designs and trade secrets. All rights reserved. © 2026 NXP B.V.