

Hearables

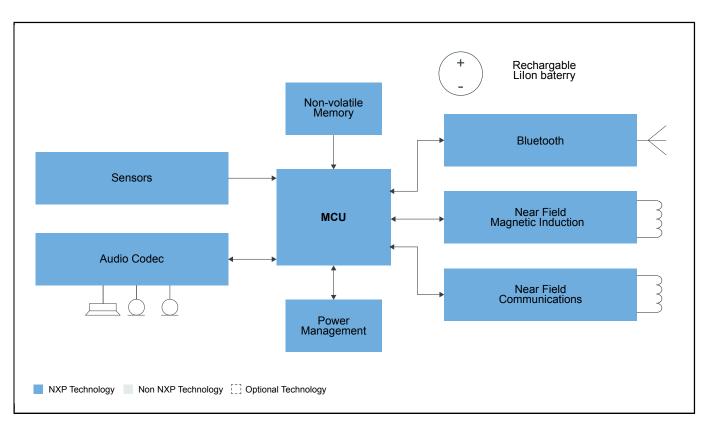
Last Updated: Feb 17, 2023

Hearables, or smart headphones, are highly integrated, truly wireless earbuds designed to improve audio experiences across a range of consumer and healthcare applications.

Small form factors, ultra-lightweight, and wireless operation increase user comfort. The continued challenge for hearables is how to combine audio quality, user experience, and better battery life in a tiny package while offering a multitude of possibilities, all of which demands digital signal processing.

NXP® offers a growing portfolio of ultra-low-power MiGLO™ hearables solutions based on digital signal processing, NFMI and Bluetooth® Low-Energy technologies. MiGLO delivers the power of wireless audio today.

Hearables Block Diagram



Recommended Products for Hearables	
MCU	MCX-A14X-A15X: MCX A14x/15x MCUs with Arm® Cortex® M33, Scalable Device Options, Low Power and Intelligent Peripherals MCX-N94X-N54X: MCX N94x/54x Highly Integrated Multicore MCUs with On-Chip Accelerators, Intelligent Peripherals and Advanced Security LPC541XX: Low-Power Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Cores With Optional Cortex®-M0+ Coprocessor i.MX-RT500: i.MX RT500 Crossover MCU with Arm® Cortex®-M33, DSP and GPU Cores i.MX-RT600: i.MX RT600 Crossover MCU with Arm® Cortex®-M33 and DSP Cores
Power Management	PCA9420-PCA9421: PMIC for Low Power Applications PCA9460: 13-Channel Power Management Integrated Circuit (PMIC) for Ultra Low Power Application Battery Management: Battery Management
NFC	NFC (HF): NFC - Near Field Communication
Memory	NXH5104UK: 4 Mbit Serial SPI EEPROM
NFMI Radio	• MiGLO®: MiGLO®
Sensors	FXLS8974CF: ±2g/±4g/±8g/±16g, Low-Power 12-Bit Digital IoT Accelerometer
Bluetooth	NXH2004: Ultra-Low Power Hearing Aid SoC Solution over Bluetooth® LE Audio NXH3670: Ultra-low Power, Low Latency Audio for Wireless Gaming Headphone NXH3675: Ultra-Low Power Bluetooth Low Energy Audio Solution with Integrated Flash
Audio Codec	SGTL5000: Ultra-Low-Power Audio Codec

View our complete solution for Hearables.

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. © 2024 NXP B.V.