



# Hearables

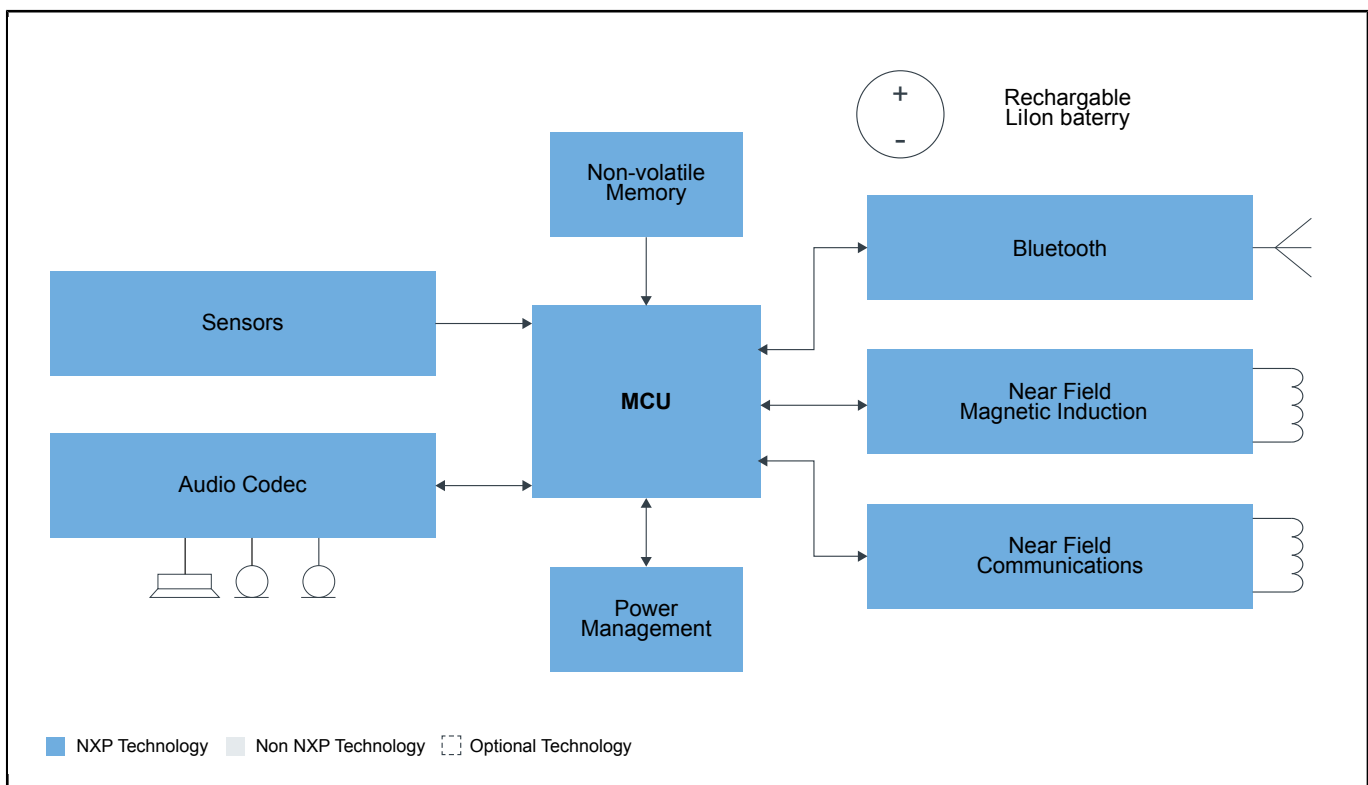
Last Updated: Dec 9, 2021

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	<ul style="list-style-type: none"> <li>• <a href="#">LPC541XX</a>: Low-Power Microcontrollers (MCUs) Based on Arm® Cortex®-M4 Cores With Optional Cortex®-M0+ Co-processor</li> <li>• <a href="#">i.MX RT500 Crossover MCU with Arm® Cortex®-M33, DSP and GPU Cores</a></li> <li>• <a href="#">i.MX RT600 Crossover MCU with Arm® Cortex®-M33 and DSP Cores</a></li> </ul>
Power Management	<ul style="list-style-type: none"> <li>• <a href="#">PCA9420</a>: PMIC for Low Power Applications</li> <li>• <a href="#">Battery Management</a>: Battery Management</li> </ul>
NFC	<ul style="list-style-type: none"> <li>• <a href="#">NFC (HF)</a>: NFC - Near Field Communication</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• <a href="#">NXH5104UK</a>: 4 Mbit Serial SPI EEPROM</li> </ul>
NFMI Radio	<ul style="list-style-type: none"> <li>• <a href="#">MiGLO®</a>: MiGLO®</li> </ul>
Sensors	<ul style="list-style-type: none"> <li>• <a href="#">MMA8451Q</a>: ±2g/±4g/±8g, Low g, 14-bit Digital Accelerometer</li> <li>• <a href="#">FXOS8700CQ</a>: Digital Motion Sensor - 3D Accelerometer (±2g/±4g/±8g) + 3D Magnetometer</li> </ul>
Bluetooth	<ul style="list-style-type: none"> <li>• <a href="#">NXH3670</a>: Ultra-low Power, Low Latency Audio for Wireless Gaming Headphone</li> </ul>
Audio Codec	<ul style="list-style-type: none"> <li>• <a href="#">SGTL5000</a>: Ultra-Low-Power Audio Codec</li> </ul>

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. © 2021 NXP B.V.