



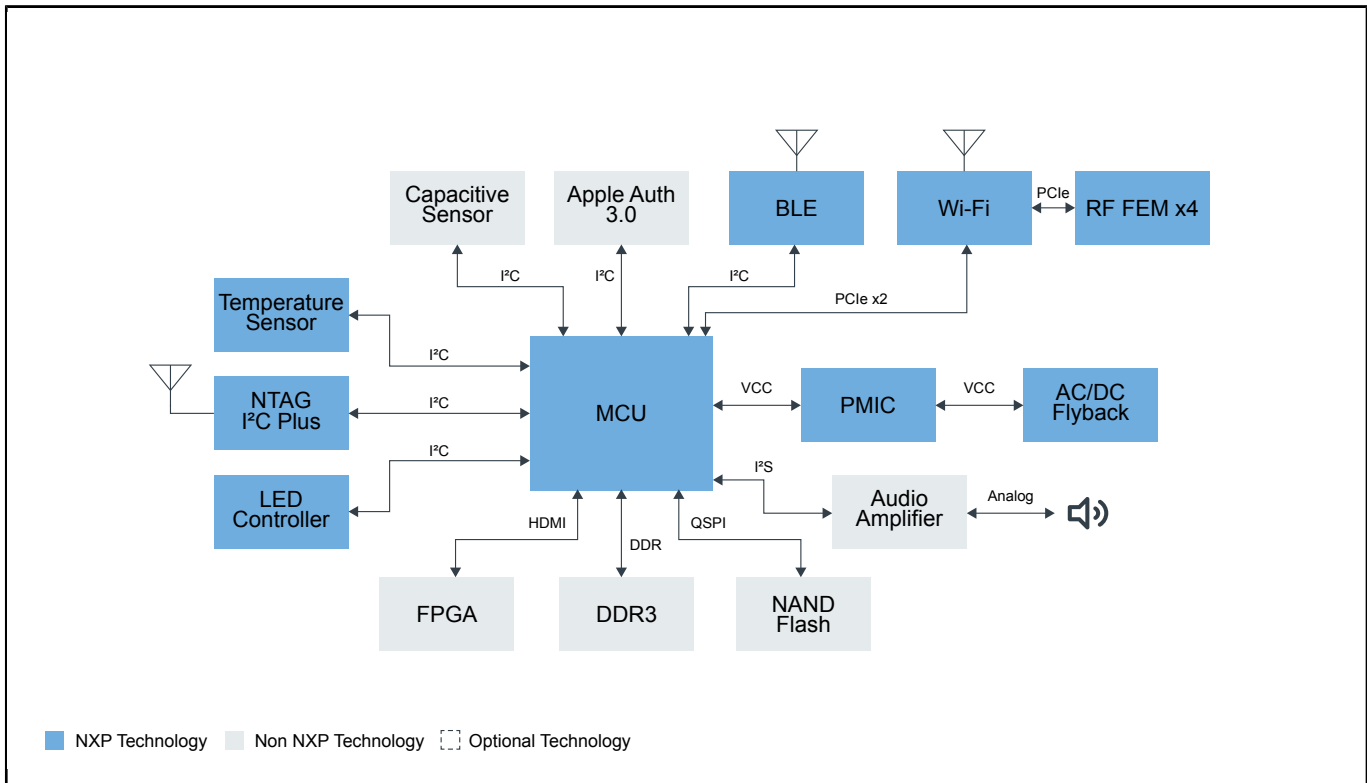
Smart Speaker

Last Updated: Nov 22, 2023

NXP smart speaker is based on an i.MX 8M processor and provides a Class-D audio amplifier with a SpeakerBoost acoustic enhancement and protection algorithm in on-chip DSP with temperature and excursion protection. By using an internal adaptive DC-to-DC converter, you get ample headroom for major improvements in audio quality.

The i.MX 8M processor provides advanced audio, voice and video processing, and low-power capabilities that create scalable, safe and secure applications.

Smart Speaker Block Diagram



Recommended Products for Smart Speaker

MCU	<ul style="list-style-type: none"> • i.MX8M: i.MX 8M Family - Arm[®] Cortex[®]-A53, Cortex-M4, Audio, Voice, Video
-----	--

Bluetooth low energy	<ul style="list-style-type: none"> • QN9090-30: QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option
Wi-Fi	<ul style="list-style-type: none"> • 88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.2 Solution
NTAG I2C Plus	<ul style="list-style-type: none"> • NTAG_I2C: NTAG I²C Plus 2K: NFC Forum Type 2 Tag with I²C Interface
AC/DC Flyback	<ul style="list-style-type: none"> • TEA1833LTS: GreenChip SMPS Control IC
Power Management	<ul style="list-style-type: none"> • PCA9450: Power Management IC (PMIC) for i.MX 8M Mini/Nano/Plus
RF FEM x4	<ul style="list-style-type: none"> • BGS8324: WLAN LNA + Switch
Temperature Sensor	<ul style="list-style-type: none"> • PCT2075: I²C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor and Thermal Watchdog
LED Controller	<ul style="list-style-type: none"> • PCA9955BTW: 16-Channel Fm+ I²C-Bus 57 MA/20 V Constant-Current LED Driver

View our complete solution for [Smart Speaker](#).

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.