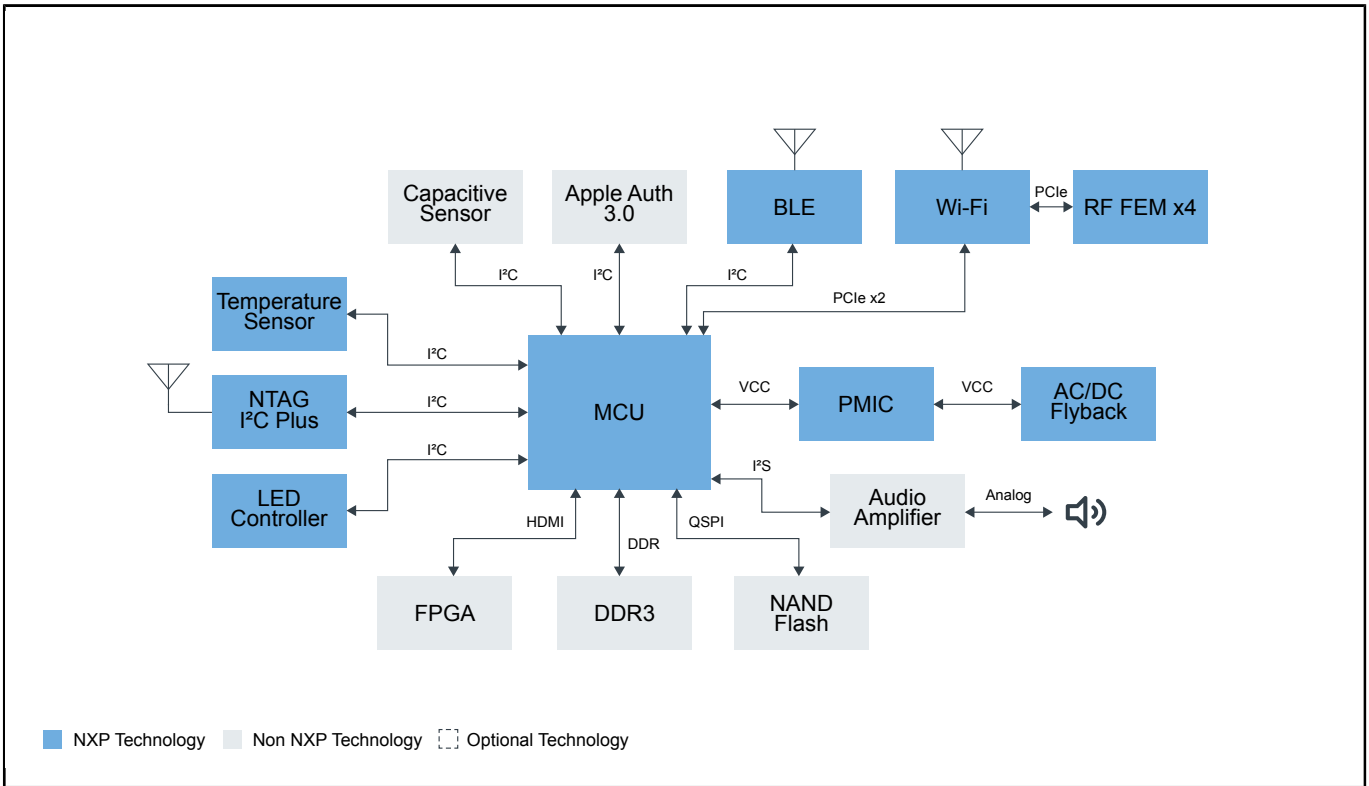
# Smart Speaker

Last Updated: Nov 12, 2021

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 excellent 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 | • i.MX 8M Family - Arm® Cortex®-A53, Cortex-M4, Audio, Voice, Video |

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| Bluetooth low energy | • QN9090/30: Bluetooth Low-Energy MCU with Arm®Cortex®-M4 CPU, Energy Efficiency, Analog and Digital Peripherals and NFC Tag Option |
| Wi-Fi | • 88W8987: 2.4/5 GHz Dual-Band 1x1 Wi-Fi® 5 (802.11ac) + Bluetooth® 5.2 Solution |
| NTAG I2C Plus | • NTAG I²C Plus 2K: NFC Forum Type 2 Tag with I²C Interface |
| AC/DC Flyback | • TEA1833LTS: GreenChip SMPS Control IC |
| Power Management | • PCA9450: Power Management IC (PMIC) for i.MX 8M Mini/Nano/Plus |
| RF FEM x4 | • BGS8324: WLAN LNA + Switch |
| Temperature Sensor | • PCT2075: I2C-Bus Fm+, 1 Degree C Accuracy, Digital Temperature Sensor And Thermal Watchdog |
| LED Controller | • 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.