



# BES2700ZP

Brief Datasheet

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Ultra-low Power Bluetooth Audio Platform for TWS,  
Adaptive ANC, Hearing-Aid and AI Voice Applications

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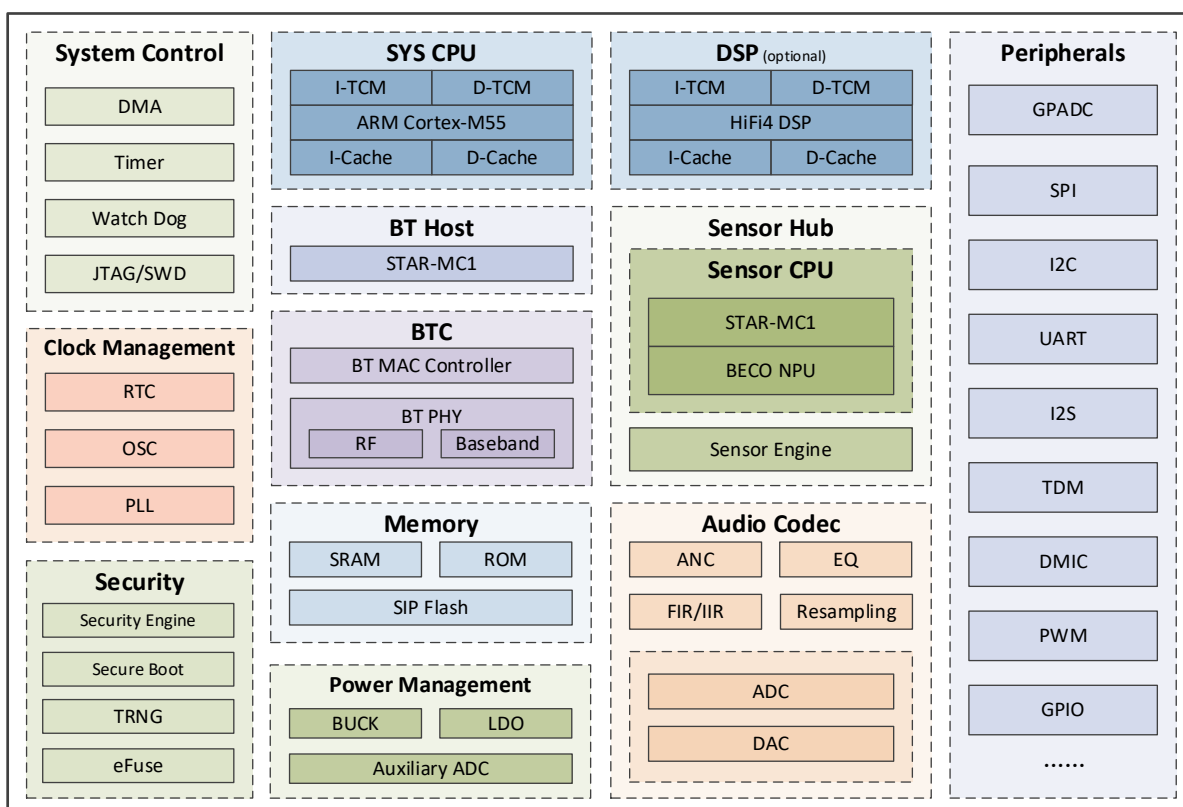
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# 1 General Description

The BES2700ZP is an ultra-low power, high performance Bluetooth audio SoC. The platform incorporates a powerful CPU subsystem comprising an Arm Cortex-M55 processor and a Tensilica HiFi 4 DSP (optional), an audio codec, as well as a Bluetooth host subsystem comprising a STAR-MC1 processor and a sensor hub subsystem comprising a STAR-MC1 processor with a BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads. This combination significantly reduces power consumption while providing substantial application processing capabilities.

The platform incorporates a dual-mode Bluetooth 5.4 subsystem for both Bluetooth classic and LE audio. The highly integrated solution is optimized through the use of IBRT technology, a BES patented sniffing technique that incorporates Forward Error Correction (FEC) for enhanced RF performance in TWS systems.



System Block Diagram

## 1.1 Applications

- Smart TWS earbuds with real-time adaptive ANC
- Smart Bluetooth headphones/headsets
- ANC hearing aids
- Bluetooth speakers
- Other portable audio devices

## 1.2 Features & Specifications\*

CPU Subsystem	ARM Cortex-M55
	Tensilica HiFi 4 DSP (optional)
Sensor Hub Subsystem	STAR-MC1
	Sensor engine
Memory and Storage	Shared 4 MB SRAM
	Flash in package
	boot ROM
Bluetooth Subsystem	STAR-MC1
	Dual-mode BT 5.4 with LE audio
Audio & Voice Features	1x DAC
	3x ADCs
Peripheral Interfaces	GPADC/SPI/I2C/UART/I2S/TDM/SPDIF/DMIC/PWM/GPIO.....
Package	108-pin BGA

\* The content in the table is subject to change without notice.