



BES2720ZP

Brief Datasheet

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

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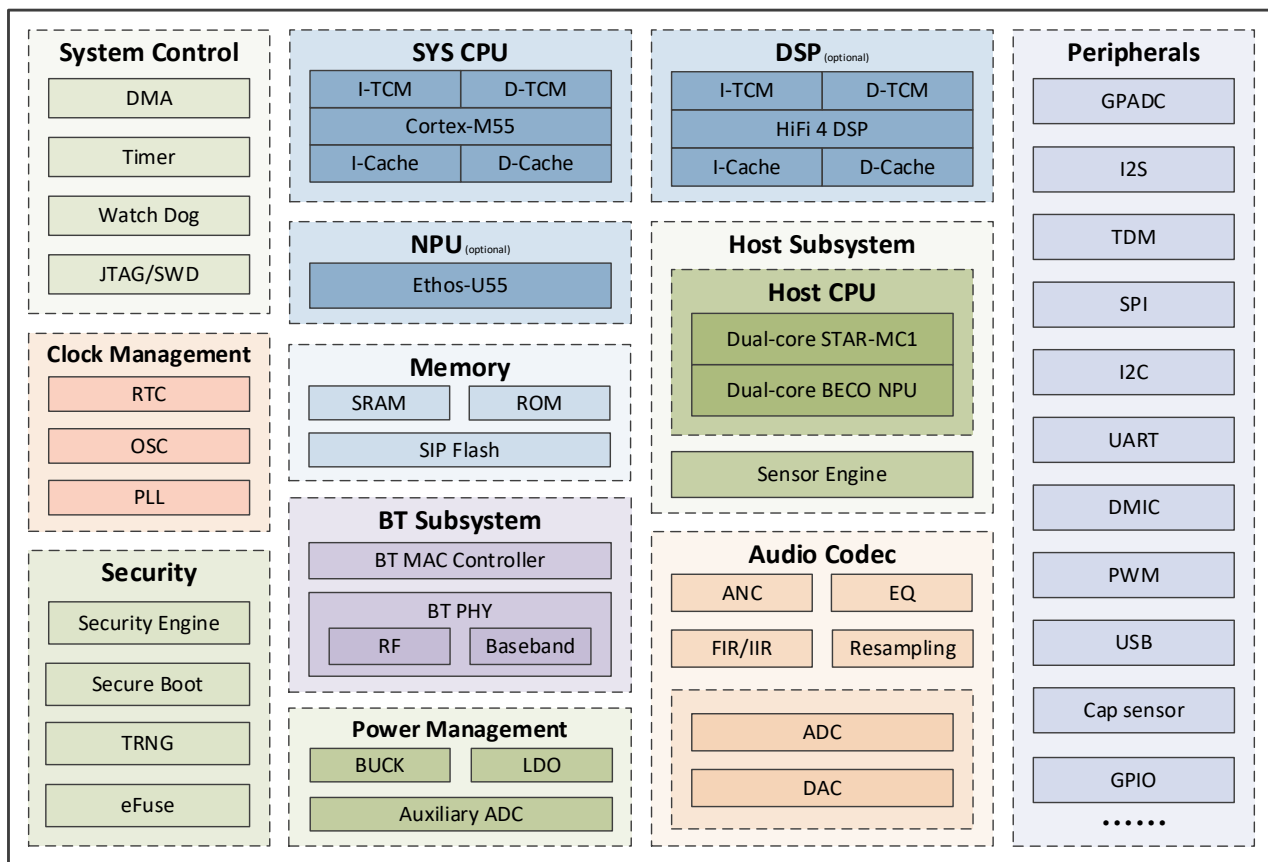
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1 General Description

The BES2720ZP is an ultra-low power, high performance, Bluetooth audio SoC. The platform incorporates a powerful CPU subsystem comprising an Arm Cortex-M55 processor, a Tensilica HiFi 4 DSP (optional) and an Ethos-U55 NPU (optional). In addition, it incorporates a host subsystem comprising a dual-core STAR-MC1 processor with a dual-core BES proprietary coprocessor (BECO) 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 6.1 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)
	Ethos-U55 NPU (optional)
Memory and Storage	Shared 4 MB SRAM
	Flash in package
	boot ROM
Bluetooth Subsystem	Dual-mode BT 6.1
Audio & Voice Features	2x DACs
	4x ADCs
Peripheral Interfaces	GPADC/I2S/TDM/SPI/I2C/UART/DMIC/PWM/USB/Cap sensor/GPIO.....
Package	108-pin BGA

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