



BES2700YP

Brief Datasheet

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

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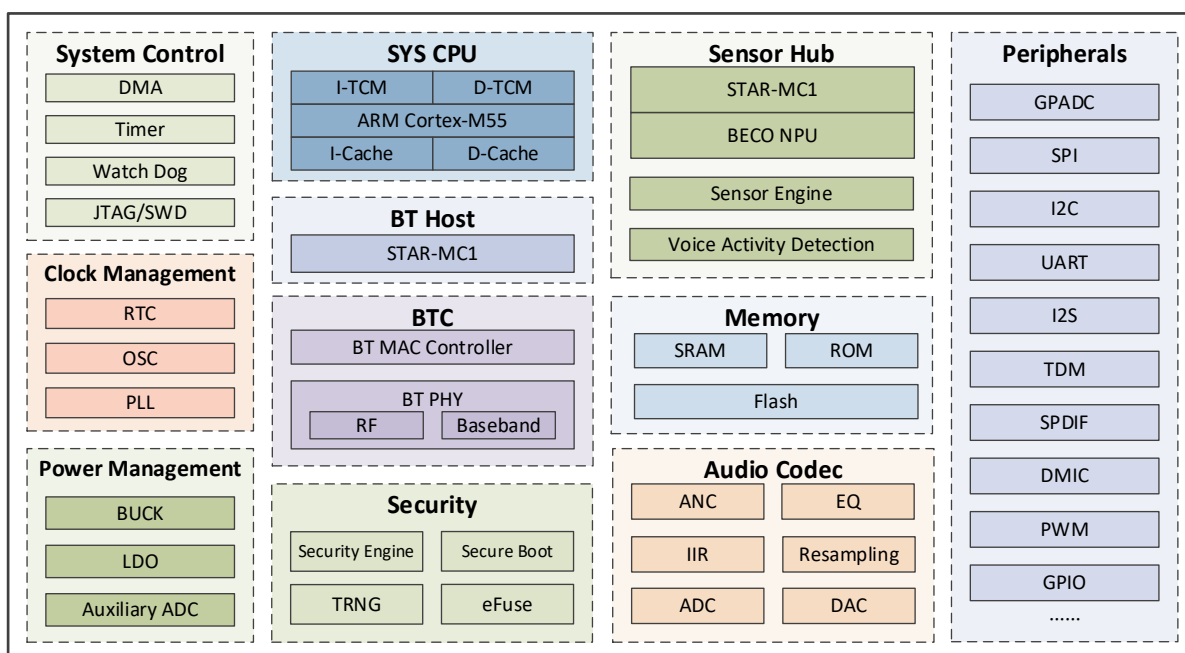
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1 General Description

The BES2700YP is an ultra-low power, high performance Bluetooth audio SoC. The platform incorporates a powerful CPU subsystem comprising an Arm Cortex-M55 processor, a Bluetooth host subsystem comprising a STAR-MC1 processor, a sensor hub subsystem comprising a STAR-MC1 processor with a BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads, as well as an audio codec. This combination significantly reduces power consumption while providing substantial application processing capabilities.

The platform incorporates a dual-mode Bluetooth 5.3 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 earbuds with adaptive ANC
- Smart Bluetooth headphones/headsets
- ANC hearing-aids
- Bluetooth speakers
- Other portable audio devices

1.2 Features & Specifications*

CPU Subsystem	ARM Cortex-M55
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 5.3 with LE audio
Audio & Voice Features	2x DACs
	4x ADCs
Peripheral Interfaces	GPADC/SPI/I2C/UART/I2S/TDM/SPDIF/DMIC/PWM/GPIO.....
Package	144-pin BGA

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