

BES2600IUC

Brief Datasheet

Ultra-low Power Bluetooth Audio Platform for TWS Applications with Hybrid ANC

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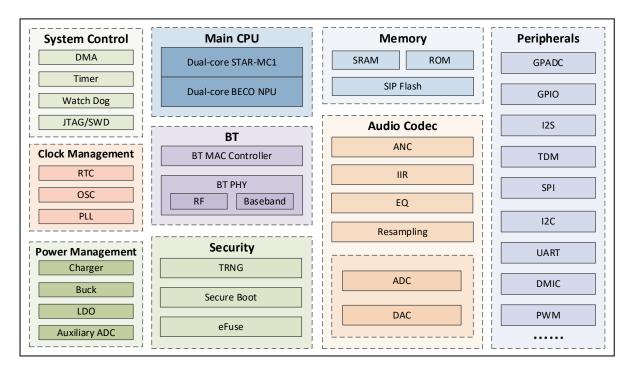
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1 General Description

The BES2600IUC is an ultra-low power Bluetooth audio SoC. The platform incorporates a CPU subsystem comprising a dual-core STAR-MC1 processor with a dual-core BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads, RAM/ROM, serial flash for software features and product customization, as well as a variety of interfaces. This combination minimizes external components, reduces BOM costs and offers a cost-effective Bluetooth audio solution.

The platform incorporates a dual-mode Bluetooth 5.3 subsystem, a codec subsystem and a Power Management Unit (PMU) with an integrated charger. The highly integrated design 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

- TWS earbuds with hybrid ANC
- Stereo headphones/headsets
- Bluetooth speakers
- Other portable audio devices

1.2 Features & Specifications^{*}

CPU Subsystem	Dual-core STAR-MC1
Memory and Storage	Shared 512 KB SRAM
	Flash in package
	boot ROM
Bluetooth Subsystem	Dual-mode BT 5.3
Audio & Voice Features	2x DACs
	2x ADCs
Peripheral Interfaces	GPADC/GPIO/I2S/TDM/SPI/I2C/UART/DMIC/PWM/
Package	50-pin QFN

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