



BES3002-SP

Brief Datasheet

USB / Type-C Audio Platform

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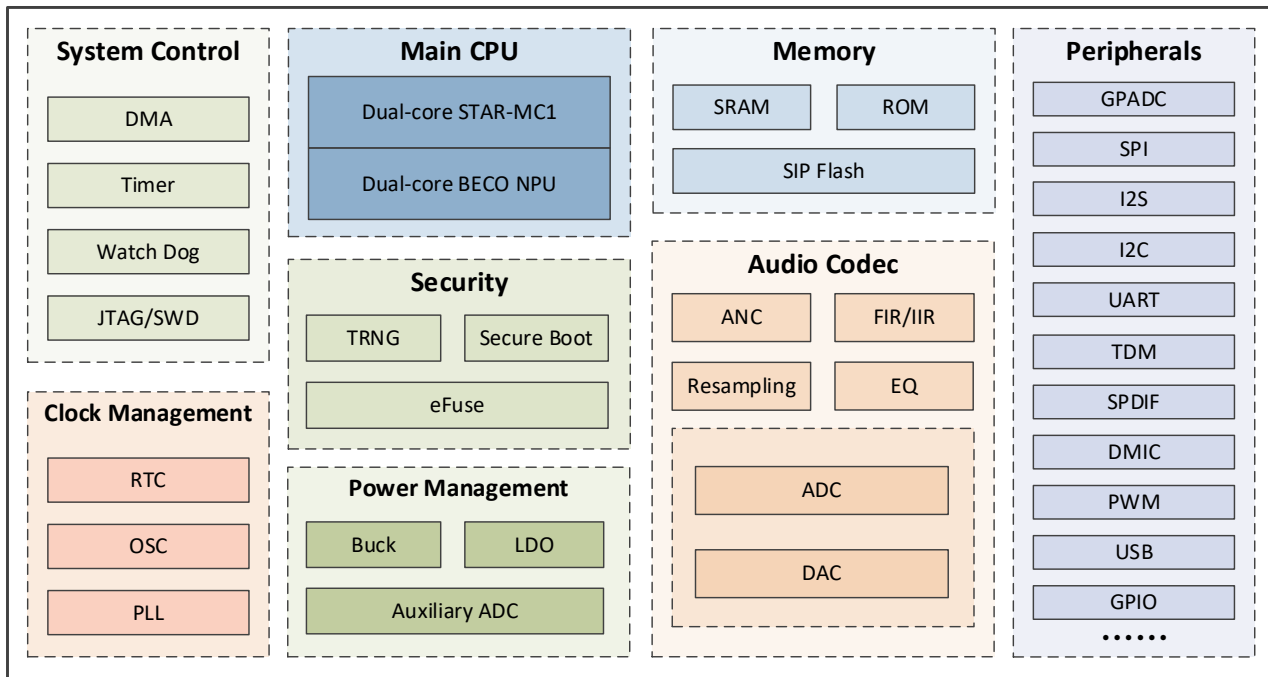
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1 General Description

The BES3002-SP is a single-chip audio codec designed for USB Type-C headphones / headsets. The platform incorporates a high performance CPU subsystem comprising a dual-core STAR-MC1 with a dual-core BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads. This combination significantly reduces power consumption while providing abundant application processing capabilities.

The platform incorporates a codec subsystem and a Power Management Unit (PMU). It is manufactured by using an advanced low power CMOS process and assembled within a 50-pin QFN package. The highly integrated design minimizes external components, reduces BOM costs and offers a cost-effective USB / Type-C audio solution.



System Block Diagram

1.1 Applications

- USB / Type-C stereo headphones
- Headphones with ANC FF or FB
- Headphones compliant with TIMS MVP 5.0

1.2 Features & Specifications*

CPU Subsystem	Dual-core STAR-MC1
Memory and Storage	Shared 768 KB SRAM
	Flash in package boot ROM
Audio & Voice Features	2x DACs
	3x ADCs
Peripheral Interfaces	GPADC/SPI/I2S/I2C/UART/TDM/SPDIF/DMIC/PWM/USB/GPIO.....
Package	50-L QFN

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