



BES2720W

Brief Datasheet

Ultra-low Power Smart Bluetooth/Wi-Fi Audio Platform

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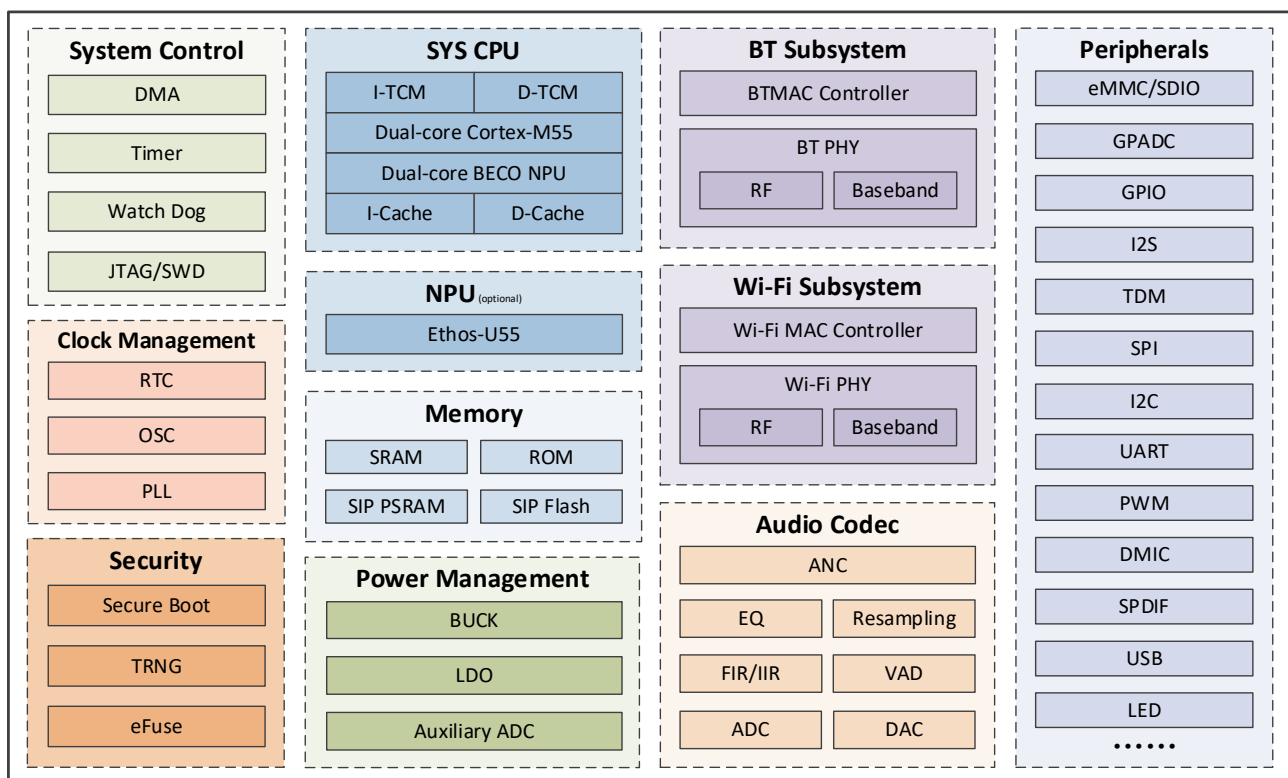
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1 General Description

The BES2720W is an ultra-low power, high performance audio SoC with integrated Bluetooth and Wi-Fi. The platform incorporates a powerful CPU subsystem comprising a dual-core Arm Cortex-M55 processor with a dual-core BES proprietary coprocessor (BECO NPU) for advance signal processing and NN workloads, and an Ethos-U55 NPU (optional). This combination significantly reduces power consumption while providing substantial application processing capabilities, ideally for spatial audio processing.

The platform incorporates a dual-mode Bluetooth 6.1 subsystem for both Bluetooth classic and LE audio, a low power Wi-Fi subsystem for energy-efficient wireless connectivity, as well as an audio codec. 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 Bluetooth/Wi-Fi TWS earbuds with real-time adaptive ANC
- Wireless lavalier microphones
- Other portable audio devices

1.2 Features & Specifications*

CPU Subsystem	Dual-core Arm Cortex-M55
	Ethos-U55 NPU (optional)
Memory and Storage	Shared 3 MB SRAM
	Flash and PSRAM in package
	boot ROM
Bluetooth Subsystem	Dual-mode BT 6.1 with Channel Sounding
Audio & Voice Features	2x DACs
	3x ADCs
Peripheral Interfaces	eMMC/SDIO/GPADC/GPIO/I2S/TDM/SPI/I2C/UART/PWM/DMIC/SPDIF/USB/LED.....
Package	231-pin BGA

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