



BES2720BP

Brief Datasheet

Ultra-low Power Bluetooth Wearable Platform

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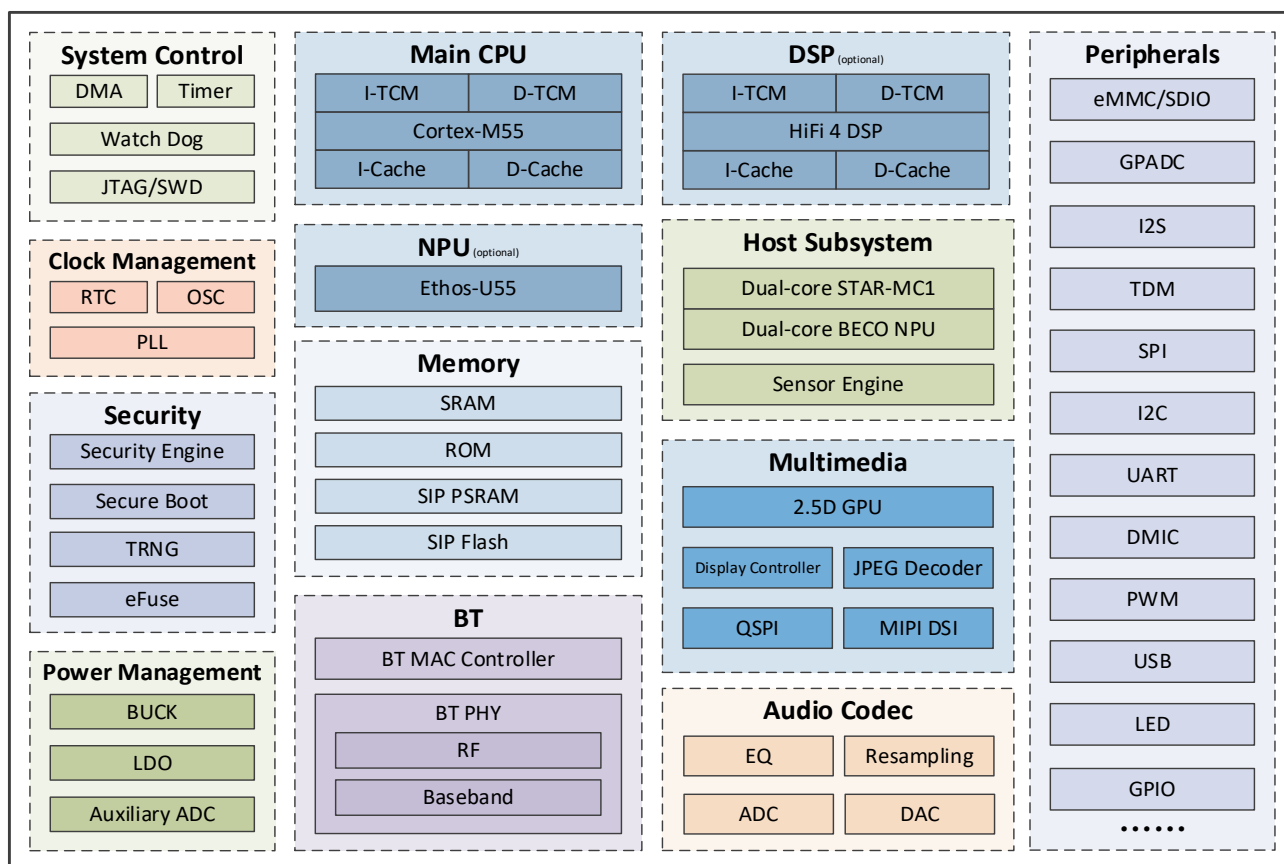
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1 General Description

The BES2720BP is an ultra-low power, high performance, smart Bluetooth wearable 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), as well as 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, and an audio codec subsystem. Furthermore, it integrates a multimedia subsystem that includes a 2.5D GPU for advanced graphics capabilities, an LCD controller with up to 3-layer alpha blending, and a 2-lane MIPI DSI with up to 720p resolution at 24bpp.



System Block Diagram

1.1 Applications

- Smart watches
- Sports watches
- Smart glasses
- Other wearable devices

1.2 Features & Specifications*

CPU Subsystem	Arm Cortex-M55
	Tensilica HiFi 4 DSP (optional)
	Ethos-U55 NPU (optional)
Host Subsystem	Dual-core STAR-MC1
	Sensor engine
Memory and Storage	Shared 4 MB SRAM
	Flash and PSRAM in package
	boot ROM
Bluetooth Subsystem	Dual-mode BT 6.1
Graphics & Multimedia	2.5D Vector GPU
Audio & Voice Features	1x DAC
	3x ADCs
Peripheral Interfaces	eMMC/SDIO/GPADC/I2S/TDM/SPI/I2C/UART/DMIC/PWM/USB/LED/GPIO.....
Package	363-pin BGA

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