BES2700BP

Brief Datasheet

Ultra-low Power Bluetooth Wearable Platform

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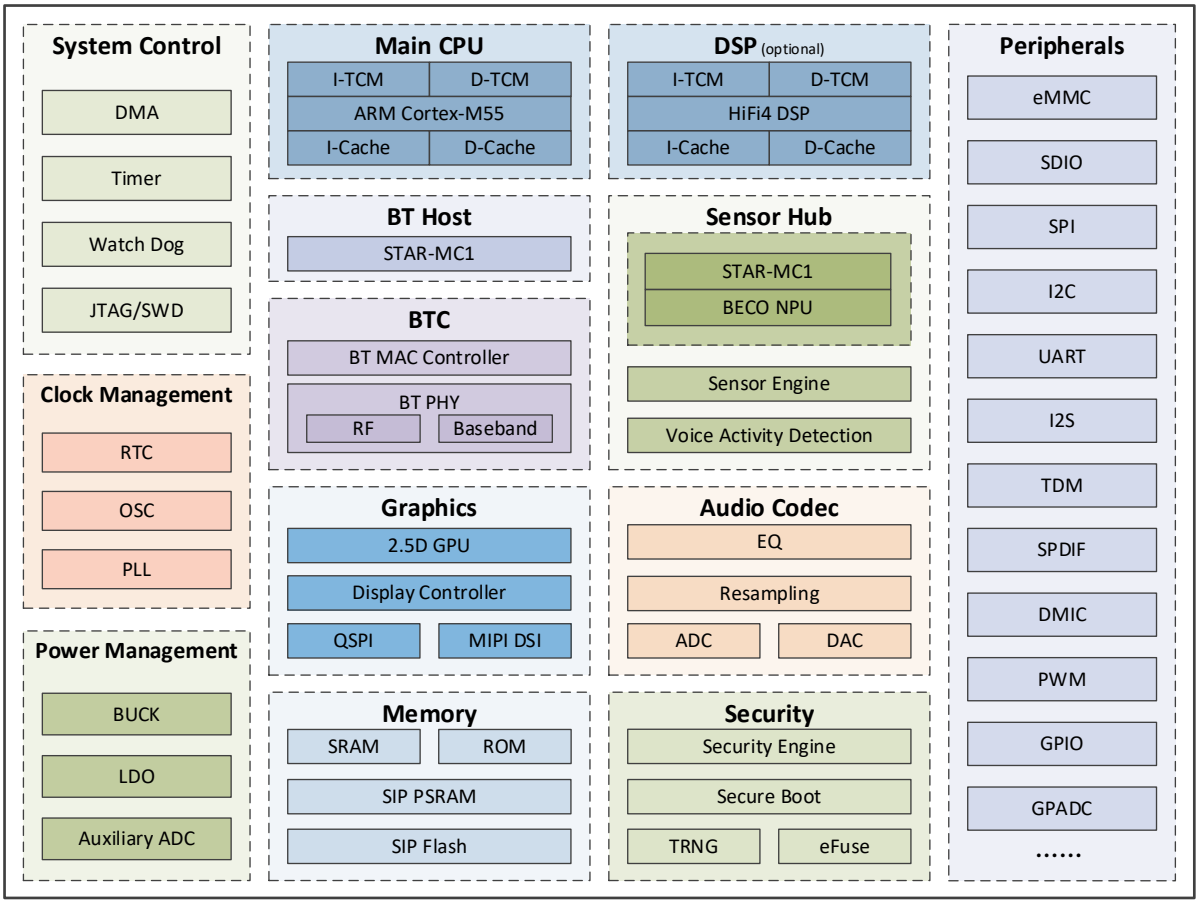
1 General Description

The BES2700BP is an ultra-low power, high performance Bluetooth wearable SoC. The platform incorporates a powerful CPU subsystem comprising an Arm Cortex-M55 processor and a Tensilica HiFi 4 DSP (optional), an audio codec subsystem, as well as a sensor hub subsystem comprising a STAR-MC1 processor with a BECO NPU, a BES proprietary coprocessor 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 5.4 subsystem for both Bluetooth classic and LE audio. Furthermore, it integrates a multimedia subsystem that includes a 2.5D GPU for advanced graphics features, an LCD controller with up to 4-layer alpha blending, and a 2-lane DSI with up to 500x500x32bit 60fps resolution.



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)
Sensor Hub Subsystem	STAR-MC1
	Sensor engine
Memory and Storage	Shared 4 MB SRAM
	Flash and PSRAM in package
	boot ROM
Bluetooth Subsystem	STAR-MC1
	Dual-mode BT 5.4 with LE audio
Graphics & Multimedia	2.5D Vector GPU
	MIPI DSI
Audio & Voice Features	1x DAC
	2x ADCs
Peripheral Interfaces	eMMC/SDIO/SPI/I2C/UART/I2S/TDM/SPDIF/DMIC/PWM/GPIO/GPADC……
Package	257-pin BGA

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