



# BES2700BP

Brief Datasheet

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## Ultra-low Power Bluetooth Wearable Platform

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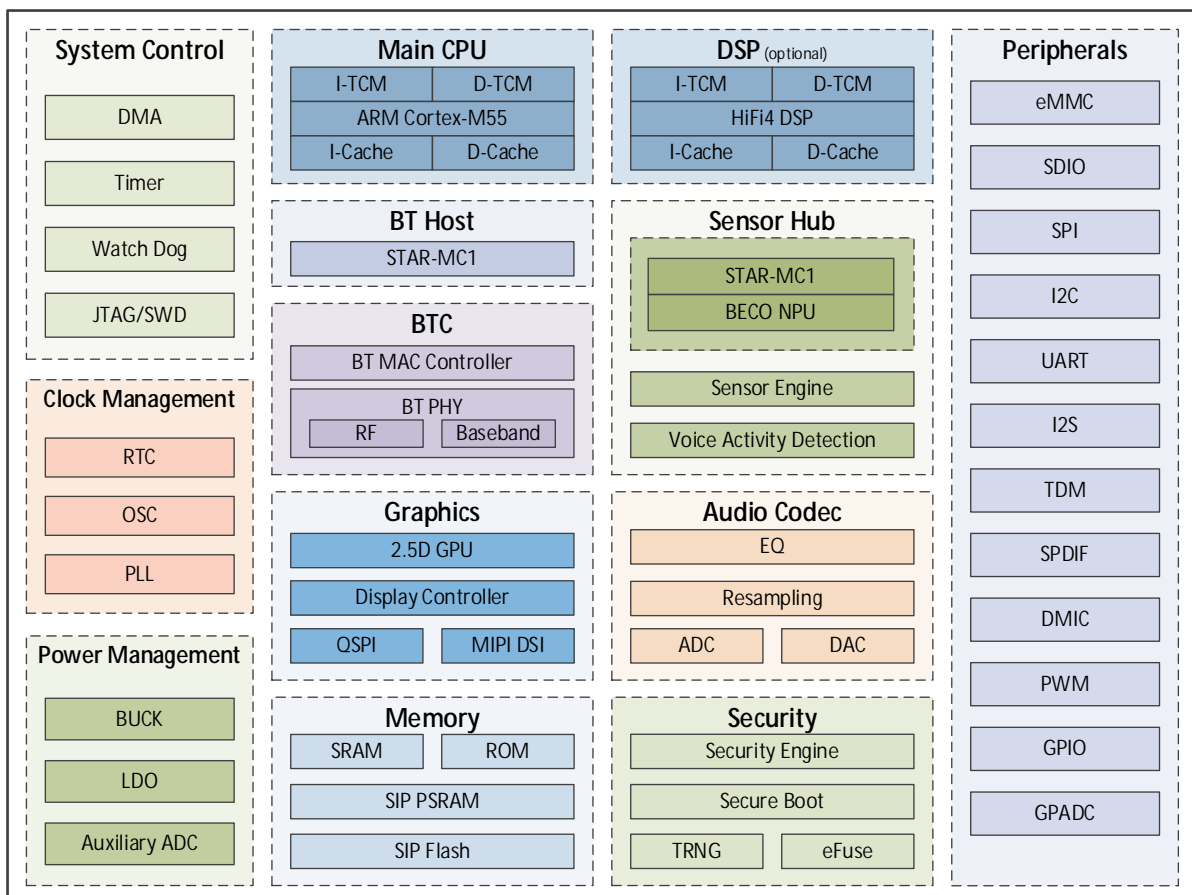
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## 1 General Description

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.