



# BES2720HP

Brief Datasheet

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

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### CONTACT US:

**Company:** Bestechnic (Shanghai) Co., Ltd. (“BES”)

**Address:** 2F, Building B, Lane 2889 Jinke Road, Pudong, Shanghai (201203)

**Phone:** (86)21 6877 1788

For product inquiries and more information, please visit [www.bestechnic.com](http://www.bestechnic.com).

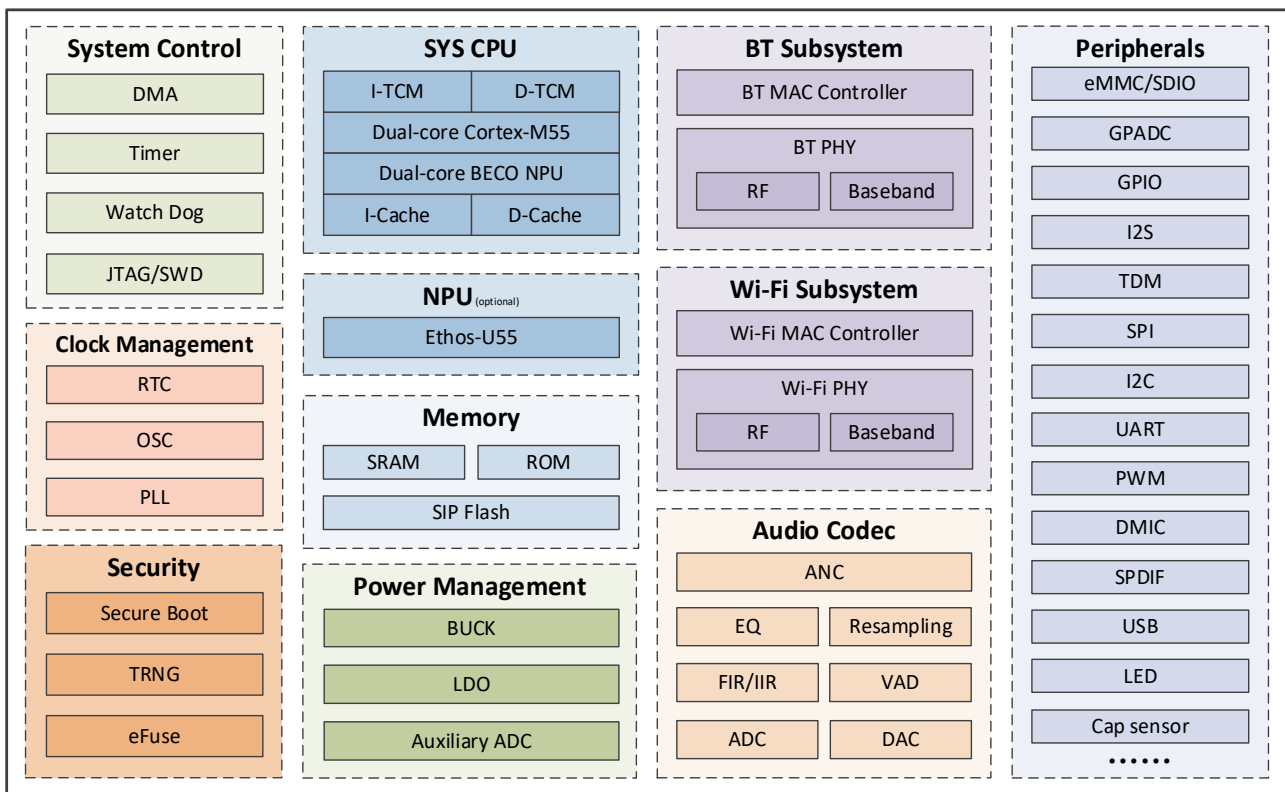
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## 1 General Description

The BES2720HP 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.

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
- 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 in package                                                      |
|                        | boot ROM                                                              |
| Bluetooth Subsystem    | Dual-mode BT 6.1 with Channel Sounding                                |
| Wi-Fi Subsystem        | Dual-band low power Wi-Fi connectivity                                |
| Audio & Voice Features | 2x DACs                                                               |
|                        | 3x ADCs                                                               |
| Peripheral Interfaces  | eMMC/SDIO/GPADC/GPIO/I2S/TDM/I2C/UART/PWM/DMIC/SPDIF/USB/LED/CAP..... |
| Package                | 153-pin BGA                                                           |

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