



BES2710CP

Brief Datasheet

Ultra-low Power LTE Cat-1 bis Wearable Platform

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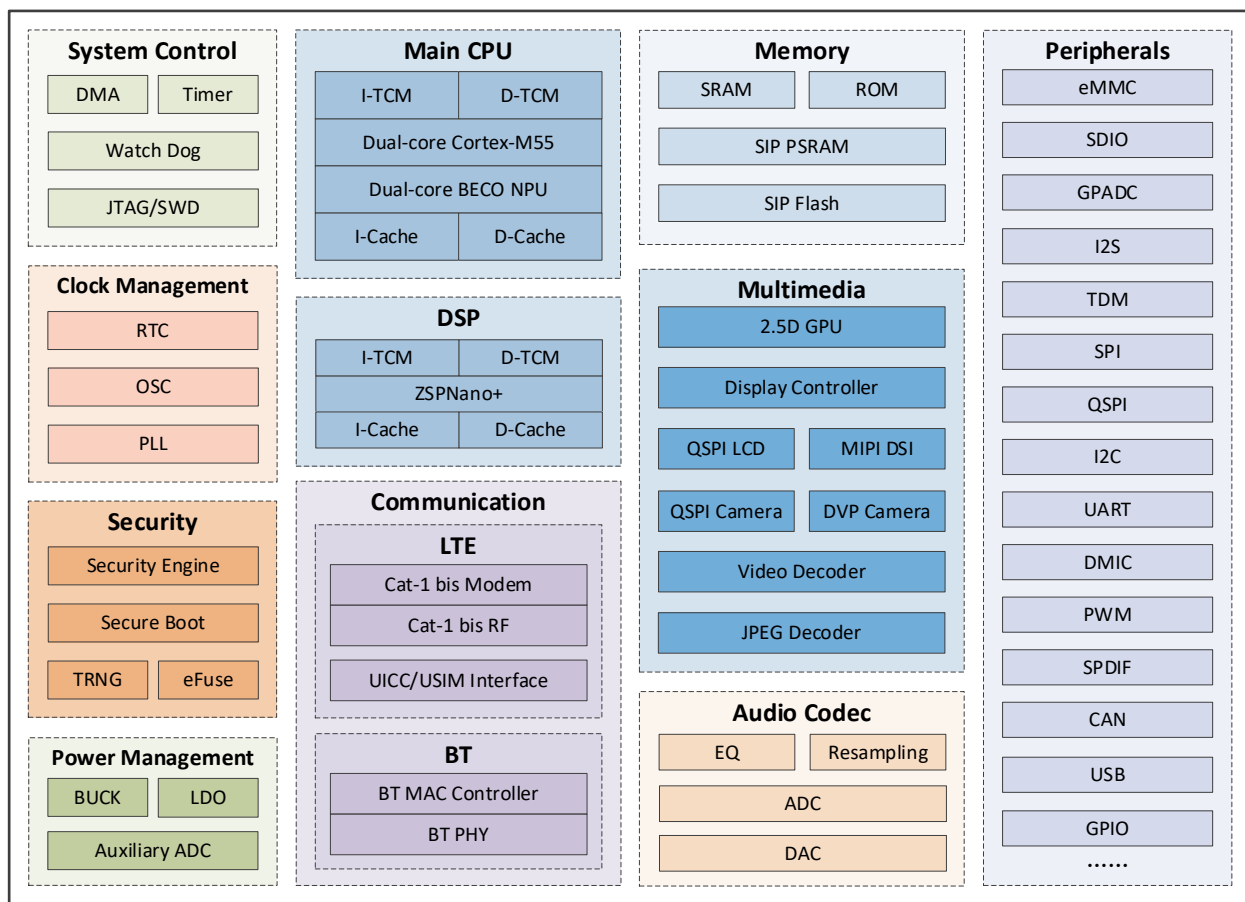
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1 General Description

The BES2710CP is ultra-low power, highly integrated LTE Cat-1 bis SoC specifically designed for cellular wearable applications. The platform features high performance CPU subsystem that includes dual-core Cortex-M55 processor with dual-core BES proprietary coprocessor (BECO) for advanced signal processing and NN workloads, and ZSPNano+ DSP for audio and video applications. This combination significantly reduces power consumption while providing substantial application processing capabilities.

The platform integrates LTE subsystem with Cat-1 bis and VoLTE support for standalone cellular calling capability, and dual-mode Bluetooth 6.1 subsystem. In addition, it includes multimedia subsystem with 2.5D GPU for advanced graphics capabilities, LCD controller supporting up to 3-layer alpha blending, and 2-lane MIPI DSI supporting up to 1080P resolution at 30 fps. Furthermore, the platform incorporates audio codec subsystem for audio and voice applications.



System Block Diagram

1.1 Applications

- LTE/Bluetooth watches
- AI companions
- Other wearable devices

1.2 Features & Specifications*

CPU Subsystem	Dual-core Cortex-M55
	ZSPNano+ DSP
Memory and Storage	Shared 2 MB SRAM
	Flash and PSRAM in package
	boot ROM
LTE Subsystem	Cat-1 bis, 3GPP Release 13 with VoLTE
Bluetooth Subsystem	Dual-mode BT 6.1 with Channel Sounding
Graphics & Multimedia	2.5D Vector GPU
	Hardware video & JPEG decoders
	MIPI DSI
Audio & Voice Features	1x DAC
	2x ADCs
Peripheral Interfaces	eMMC/SDIO/GPADC/I2S/TDM/SPI/QSPI/I2C/UART/DMIC/PWM/CAN/USB/GPIO/.....
Package	340-pin BGA

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