BES2600WM

Brief Datasheet

Smart Wi-Fi/Bluetooth Single Chip Audio Platform

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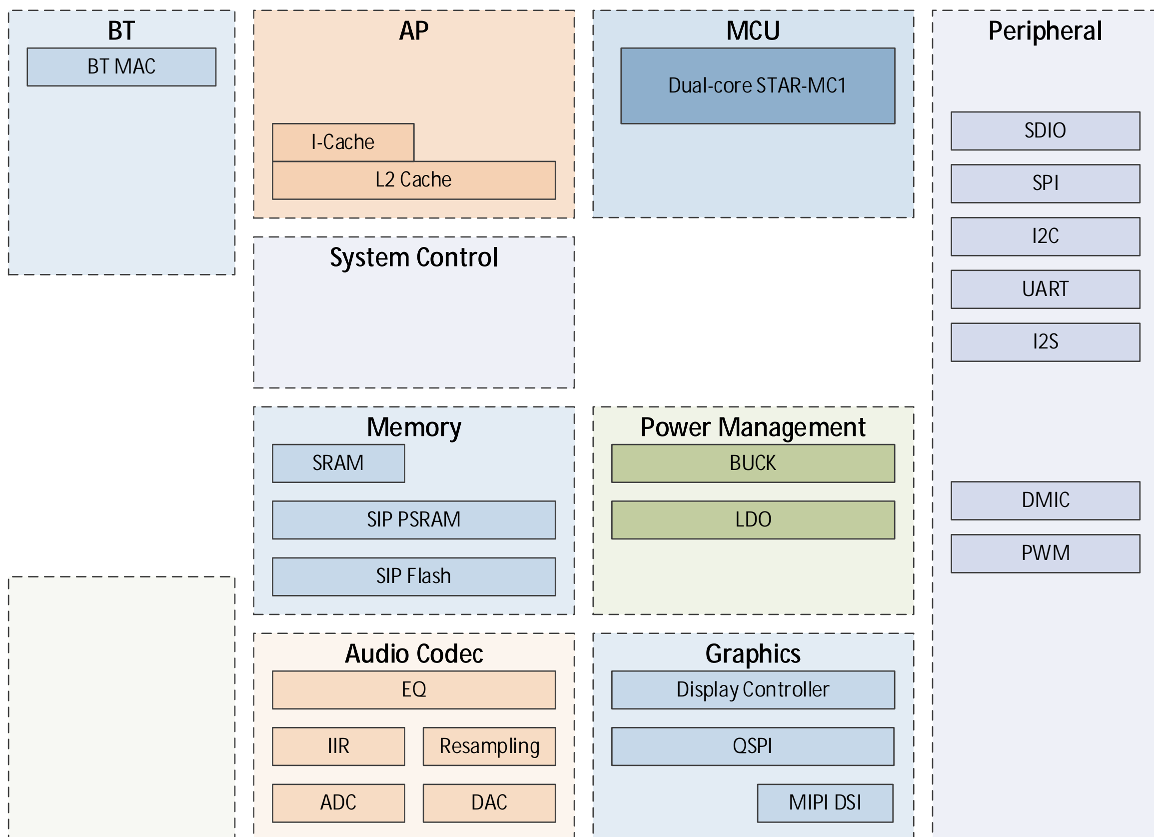
1 General Description

The BES2600WM is a highly integrated, high performance audio SoC with integrated Wi-Fi and Bluetooth. The platform incorporates a powerful AP subsystem comprising a dual-core Cortex A7 and a power-efficient MCU subsystem comprising a dual-core STAR-MC1 with a dual-core BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads. The platform also includes a voice and audio codec subsystem that supports microphone arrays with up to three analog microphones or six digital microphones for far-field voice applications, as well as a graphics subsystem that includes a display controller and supports QSI, CSI and DSI interfaces.

Both the MCU and AP subsystems are capable of running RTOS and user applications. In addition, the MCU subsystem runs the Bluetooth upper protocol stack, while the AP subsystem runs voice and audio processing and AI tasks. The Wi-Fi and Bluetooth subsystems integrate separate RF circuitry for optimized coexistence performance. The highly integrated design minimizes external components and reduces BOM costs.



1.2 Features & Specifications*

AP Subsystem	Dual-core Cortex-A7
MCU Subsystem	Dual-core STAR-MC1
Memory and Storage	Shared 2 MB SRAM
	Flash and PSRAM in package
	boot ROM
Wi-Fi/Bluetooth Subsystem	Dual-Band 2.4G & 5G Wi-Fi IEEE 802.11 a/b/g/n
	Dual-mode BT 5.4 with LE audio
Audio & Voice Features	2x DACs
	3x ADCs
Graphics & Multimedia	2.5D Vector GPU
	MIPI DSI
Peripheral Interfaces	SDIO/PTA/eMMC/SPI/I2C/UART/I2S/TDM/SPDIF/DMIC/PWM/GPIO/GPADC/IR......
Package	169-pin BGA

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