

BES2710IM

Brief Datasheet

Ultra-low Power Bluetooth Platform for Wireless Connectivity

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1 General Description

The BES2710IM is an ultra-low power and highly integrated Bluetooth SoC designed for wireless connectivity applications. The platform incorporates a CPU subsystem comprising a STAR-MC1 processor with a BECO NPU, a BES proprietary coprocessor for advance signal processing and NN workloads, RAM/ROM, serial flash for software features and product customization, security extensions, as well as variety of interfaces.

The platform incorporates a Bluetooth Low Energy 5.4 subsystem, a codec subsystem and a Power Management Unit (PMU) with an integrated charger. The highly integrated design minimizes external components, reduces BOM costs and offers a cost-effective Bluetooth solution.

System Control	Main CPU		Memory		
DMA	STAR-MC1		SRAM	ROM	
Timer	BECO NPU		SIP F	SIP Flash	
Watch Dog			Peripherals		
SWD	ВТ				
	BLE MAC Controller		GPA	GPADC	
Clock Management	BLE PHY		GPI	GPIO	
RTC	RF Baseband SPI		1		
OSC					
PLL	Audio Codec		I2C		
	DAC		UAI	UART	
Security			DM	DMIC	
TRNG	Power Management				
Secure Boot	Buck	LDO	PW	PWM	
eFuse	Auxiliary ADC	Charger	Cap se	Cap sensor	
eruse			••••		

System Block Diagram

1.1 Applications

• BLE MCU for wireless connectivity

1.2 Features & Specifications^{*}

CPU Subsystem	STAR-MC1	
	Shared 256 KB SRAM	
Memory and Storage	Flash in package	
	boot ROM	
Bluetooth Subsystem	Bluetooth Low Energy 5.4	
Audio Features	1x DAC	
Peripheral Interfaces GPADC/GPIO/SPI/I2C/UART/DMIC/PWM		
Package	36-L QFN	

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