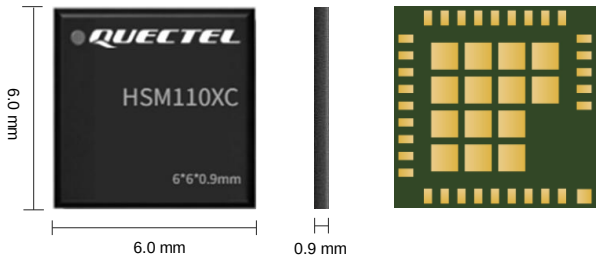
Quectel HSM110XC

BLE 5.4 SIP Module
Compact LGA Package



The HSM110XC is a low-power, cost-effective SIP Bluetooth module launched by Quectel, featuring a Cortex-M4 processor with a main frequency of up to 64 MHz. It supports the BLE 5.4 protocol and integrates 80 KB SRAM and 1 MB flash memory.

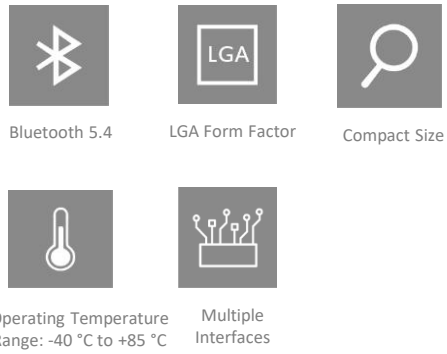
The HSM110XC adopts an LGA package with an ultra-compact size of 6.0 mm × 6.0 mm × 0.9 mm, which optimally meets the demand for small-form-factor modules in end products and is compatible with diverse structural designs.

In QuecOpen® solution, the HSM110XC supports up to 25 GPIO interfaces, which can be multiplexed as UART, SPI, I2C, ADC, and other interfaces. With support for Bluetooth low-power modes, it can be flexibly and widely applied in scenarios such as smart homes and industrial IoT, catering to various application requirements.

The HSM110XC module features exceptional ultra-low power consumption: broadcasting current consumption is as low as 10 µA at a 1-second interval, and connection current consumption is as low as 7 µA at a 1-second interval. Additionally, the HSM110XC integrates 80 KB SRAM and 256-bit EFUSE, supports user-defined IDE-based system-on-chip development, and features SFLASH MCU and JTAG software upgrade functions.

Key Features

- BLE 5.4
- 80 KB SRAM、1 MB flash
- Operating temperature range: -40 °C to +85 °C
- Internal PCB antenna, external pin antenna (optional)
- 25 GPIOs are available in QuecOpen® solution, which can be multiplexed as interfaces such as UART, SPI, I2C, and ADC.



Quectel HSM110XC

BLE 5.4	HSM110XC	
Bluetooth Protocol	BLE 5.4	
Encryption Mode	AES128、AES256、SHA-256	
Operating Mode	BLE (Bluetooth Low Energy)	
Kernel	ARM Cortex-M4（up to 64 MHz）	
SRAM	80 KB	
Flash	1 MB	
Dimension	6.0 mm × 6.0 mm × 0.9 mm	
Weight	Approx. 0.05 g	
Temperature Range		
Operating Temperature Range	-40 °C ~ +85 °C	
Storage Temperature Range	-45 °C ~ +95 °C	
Certification		
Regulatory	**Europe：** CE* **America：** FCC* **Canada：** IC* **Australia/New Zealand：** RCM*	
Interfaces		
Antenna Interface	× 1 (Internal PCB antenna, external pin antenna) (optional)	
Other Interfaces ①	UART/ SPI/ I2C/ ADC	
Electrical Features		
Power Supply Voltage	1.71–3.6 V, Typ. 3.3 V	
RF Performance		
	Receiver Sensitivity	**Transmit Power**
BLE (1 Mbps)	-98 dBm ±2 dB	3 dBm ±2 dB
BLE (2Mbps)	-96 dBm ±2 dB	3 dBm ±2 dB

Ordering Code	Flash	Operating Temperature Range	Development Board (Only for Debugging)
HSM110XCAAMD	1 MB	-40 °C ~ +85 °C	HSM110XCAATB

NOTE:

1. *: In progress.
2. ①: See hardware design documents for details of the module interfaces.

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