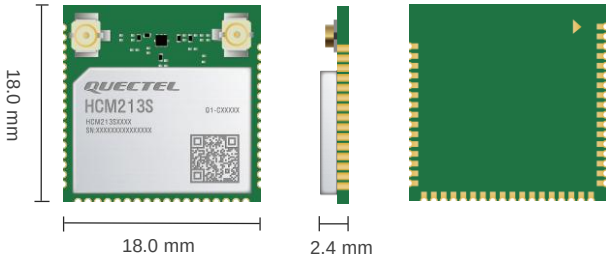
Quectel HCM213S

Bluetooth 6.0
Compact LCC Package



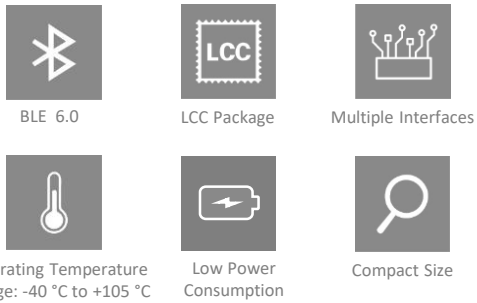
HCM213S is a high-performance MCU BLE module by Quectel. It boasts an ARM Cortex-M33 processor with a frequency of up to 78 MHz and a Cortex-M0 processor for radio, which supports BLE 6.0 and BLE mesh. The module features built-in 256 KB SRAM and 1 MB/ 2 MB flash, ensuring efficient performance. And it offers an enhanced security option, Secure Vault, featuring a higher level of IoT security.

HCM213S is in an LCC form factor with a compact size, which optimizes the size and cost for end-products and is compatible with diverse designs.

HCM213S can support up to 26 GPIOs in the case of multiplexing, which can be used for interfaces including I2C, UART, SPI, I2S, etc. It supports low power features which is suitable for battery powered devices, such as door locks, smart plugs, lighting, remote controls, etc. It also features a superior sensitivity of -97.6 dBm and a transmit power of up to +19.5 dBm, providing flexibility and versatility for a range of applications.

Key Features

- BLE 6.0 (Channel Sounding support) and BLE mesh
- Ultra-low power, suitable for battery powered devices
- 256 KB SRAM and 1 MB/ 2 MB flash (optional)
- 26 GPIOs which can be used for interfaces including I2C, UART, SPI, I2S, etc.
- Operating temperature range: -40 °C to +105 °C
- 1st generation RF coaxial connector × 2



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Quectel HCM213S

BLE 6.0	HCM213S
Bluetooth Protocol	BLE 6.0
Modulation Mode	2(G)FSK, (G)MSK, OQPSK, DSSS
Antenna	1st generation RF coaxial connector × 2
MCU Core	ARM Cortex-M33 (up to 78 MHz), Cortex-M0 for radio
SRAM	256 KB
Flash	1 MB/ 2 MB (optional)
Transmit Power	+10 dBm/ +19.5 dBm (optional)
Dimensions	18.0 mm × 18.0 mm × 2.4 mm
Weight	Approx. 1.36 g
Temperature Range	
Operating Temperature Range	-40 °C to +105 °C
Storage Temperature Range	-45 °C to +125 °C
Certifications	
Regulatory (Planning)	**Europe:** CE **America:** FCC **Canada:** IC **China:** SRRC **Australia/New Zealand:** RCM **Japan:** TELEC
Others (Planning)	Bluetooth
Interfaces	
Interfaces ①	26 GPIOs (I2C/ UART/ SPI/ I2S, etc.)
Electrical Features	
Power Supply Voltage	1.71–3.8 V, typ. 3.3 V

Ordering Code	Flash	Transmit Power	Operating Temperature Range	Antenna	Development Board (Only for Debugging)
HCM213SAAMD-1X-01	1 MB	+19.5 dBm	-40 °C to +105 °C	1st generation RF coaxial connector × 2	HCM213SAATB-1X-01
HCM213SAAMD-1X-02	2 MB	+19.5 dBm	-40 °C to +105 °C	1st generation RF coaxial connector × 2	HCM213SAATB-1X-02
HCM213SABMD-1X-01	1 MB	+10 dBm	-40 °C to +105 °C	1st generation RF coaxial connector × 2	HCM213SABTB-1X-01
HCM213SABMD-1X-02	2 MB	+10 dBm	-40 °C to +105 °C	1st generation RF coaxial connector × 2	HCM213SABTB-1X-02

NOTE:

①: See hardware design manual for details of the module interfaces.

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