Quectel FLM263D

Wi-Fi 6 & BLE 5.2 Module
Compact LCC Package

17.3 mm

15.0 mm

2.8 mm
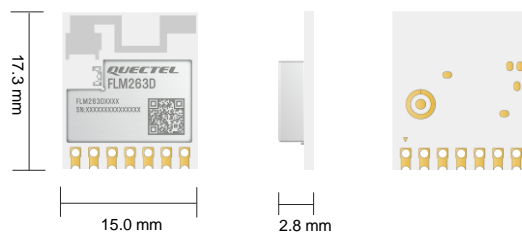
FLM263D is a cutting-edge 2.4GHz single band Wi-FI6 module launched by Quectel. It boasts a high-performance processor with a frequency of up to 320 MHz The modules supports IEEE 802.11b/g/n/ax protocol and BLE 5.2. It features built-in 512 KB SRAM and 4 MB flash. In addition, this module complies with WPA-PSK, WPA2-PSK and WPA3-SAE security standards.

FLM263D is LCC form factor with an ultra-compact size of 17.3 mm × 15.0 mm × 2.8 mm, and it is compatible with diverse designs contributed to its small size.

FLM263D provides 5*UART and these can be used as 5*PWM or I2C communication, with an working temperature of -40 ~ +105℃, leading to a high applicability with smart lighting devices, smart bulb in particular.

FLM263D supports ACK SDK for Matter, enabling a quick setup with Amazon Alexa as well as excellent compatibilities with other mainstream matter solutions.

Key Features

- ✔ Wi-Fi 6 module, 2.4GHz，single band , 1 × 1 antenna
- ✔ Bluetooth 5.2(LE) and BLE network configure supported
- ✔ PCB antenna
- ✔ Large memory, 512 KB SRAM and 4 MB flash
- ✔ Wide operating temperature range: -40 °C to +105 °C
- ✔ LCC package and DIP pinholes compatible

IEEE 802.11b/g/n/ax   BLE 5.2   Large Memory

Compact Size   Operating Temperature Range: -40 °C to +105 °C

Wi-Fi 6 & BLE 5.2	FLM263D
WLAN Protocol	IEEE 802.11b/g/n/ax
Wi-Fi Frequency Band	2.4 GHz
Wi-Fi Modulation Mode	CCK/ BPSK/ QPSK/ 16QAM/ 64QAM
Wi-Fi Operating Mode	AP/ STA/ STA + AP
Bluetooth Protocol	BLE 5.2
Encryption Mode	WPA-PSK/ WPA2-PSK/ WPA3-SAE
Internet Protocol	IPv6
Kernel	RISC-V (up to 320 MHz)
SRAM	512 KB
Flash	4 MB [1]
Dimensions	17.3 mm × 15.0 mm × 2.8 mm
Weight	Approx. 0.9 g
Temperature Range	
Operating Temperature	-40 °C to +105 °C
Storage Temperature	-45 °C to +115 °C
Certification	
Regulatory	**Europe:** CE **America:** FCC **Canada:** IC **China:** SRRC **Australia/New Zealand:** RCM
Interfaces	
Antenna Interface	× 1 (PCB antenna)
Other Interfaces [2]	GPIO/ PWM/ I2C/ UART/ ADC
Electrical Features	
Power Supply Voltage	3.0–3.6 V, Typ.3.3 V

NOTE:

1. [1]: Contact Quectel sales if you need a flash of other specifications.
2. [2]: See hardware design manual for details of the module interfaces.

Wi-Fi 6 & BLE 5.2		FLM263D	
RF Performance			
		Receiver Sensitivity	Transmit Power
2.4 GHz	802.11b/1 Mbps	-98 dBm ±2 dB	18 dBm ±1 dB
	802.11b/11 Mbps	-89 dBm ±2 dB	18 dBm ±1 dB
	802.11g/6 Mbps	-91 dBm ±2 dB	15 dBm ±1 dB
	802.11g/54 Mbps	-74 dBm ±2 dB	14 dBm ±1 dB
	802.11n/HT20 MCS 0	-90 dBm ±2 dB	14 dBm ±1 dB
	802.11n/HT20 MCS 7	-72 dBm ±2 dB	13 dBm ±1 dB
	802.11ax/HE20 MCS 0	-90 dBm ±2 dB	14 dBm ±1 dB
	802.11ax/HE20 MCS 7	-72 dBm ±2 dB	13 dBm ±1 dB
BLE	1 Mbps	-94 dBm ±2 dB	11 dBm ±1 dB

Ordering Code	Flash	Operating Temperature Range	Antenna	Development Board (Only for Debugging)
FLM263DAAMD-0P-04	4 MB	-40 °C to +105 °C	PCB antenna	FLM263DAATB-0P-04