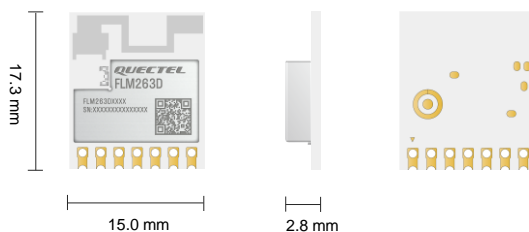


Quectel FLM263D

Wi-Fi 6 & BLE 5.2 Module

Compact LCC + DIP Package



FLM263D is a cutting-edge MCU Wi-Fi 6 and Bluetooth module launched by Quectel. It has a built-in 32-bit RISC-V processor with a frequency of up to 320 MHz and supports IEEE 802.11b/g/n/ax protocol and BLE 5.2. The module features built-in 512 KB SRAM and 4 MB flash, complies with WPA-PSK, WPA2-PSK, and WPA3-SAE security standards, integrates the Mbed TLS encryption library, and supports the Secure Boot security startup mechanism.

FLM263D is in an LCC + DIP form factor with an ultra-compact size of 17.3 mm × 15.0 mm × 2.8 mm, which optimizes the size and cost for end-products and is compatible with diverse designs.

The module supports ADC and PWM functions in QuecOpen® solution, and many low power consumption modes and keep-alive mechanism, which provide flexibility and versatility for a range of applications, especially in smart homes, industrial IoT, consumer electronics and other application scenarios to meet various product needs. It is especially suitable for small-sized, high-temperature IoT devices, such as light bulbs.

FLM263D integrates the ACK SDK for Matter solution, which enables terminal products to quickly and efficiently access the Amazon Alexa platform and can be interconnected with other smart devices that support the Matter protocol.

Key Features

- ✓ Wi-Fi 6 module, single band (2.4 GHz)
- ✓ BLE 5.2 and Bluetooth-assisted Wi-Fi provisioning
- ✓ PCB antenna or 1st generation RF coaxial connector (Optional)
- ✓ Large memory, 512 KB SRAM and 4 MB flash
- ✓ Wide operating temperature range: -40 °C to +105 °C
- ✓ High stability, high reliability and full compatibility



IEEE 802.11b/g/n/ax



BLE 5.2



Secure Boot



ACK SDK for Matter



Mbed TLS Encryption



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

Quectel FLM263D

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	DBPSK/ DQPSK/ CCK/ BPSK/ QPSK/ 16QAM/ 64QAM			
Wi-Fi Operating Mode	AP/ STA			
Bluetooth Protocol	BLE 5.2			
Encryption Mode	WPA-PSK/ WPA2-PSK/ WPA3-SAE			
Internet Protocol	IPv4/ IPv6			
Kernel	RISC-V (up to 320 MHz)			
SRAM	512 KB			
Flash	4 MB			
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 or 1st generation RF coaxial connector) (Optional)			
Other Interfaces ^①	PWM/ ADC			
Electrical Features				
Power Supply Voltage	3.0–3.6 V, Typ. 3.3 V			
RF Performance				
		Receiver Sensitivity		Transmit Power
2.4 GHz	802.11b/1 Mbps	-97 dBm ±2 dB		18 dBm ±2 dB
	802.11b/11 Mbps	-89 dBm ±2 dB		18 dBm ±2 dB
	802.11g/6 Mbps	-91 dBm ±2 dB		16 dBm ±2 dB
	802.11g/54 Mbps	-74 dBm ±2 dB		15 dBm ±2 dB
	802.11n/HT20 MCS 0	-90 dBm ±2 dB		15 dBm ±2 dB
	802.11n/HT20 MCS 7	-72 dBm ±2 dB		14 dBm ±2 dB
	802.11ax/HE20 MCS 0	-90 dBm ±2 dB		15 dBm ±2 dB
	802.11ax/HE20 MCS 7	-72 dBm ±2 dB		14 dBm ±2 dB
BLE	1 Mbps	-94 dBm ±2 dB		10 dBm ±2 dB
Ordering Code				
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
FLM263DAAMD-1X-04	4 MB	-40 °C to +105 °C	1st generation RF coaxial connector	FLM263DAATB-1X-04

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