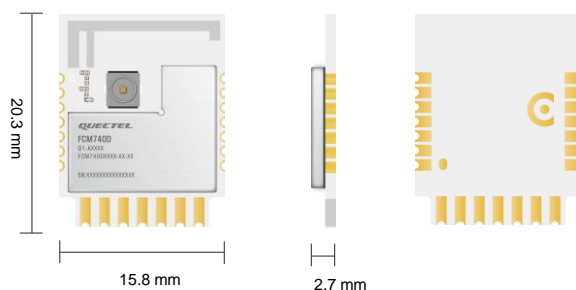


# Quectel FCM740D

## Wi-Fi 4 & BLE 5.2 Module Compact LCC + DIP Package



FCM740D is a cutting-edge MCU Wi-Fi and Bluetooth module launched by Quectel. It boasts a high-performance processor with a frequency of up to 120 MHz and supports IEEE 802.11b/g/n protocol and BLE 5.2. The module features built-in 256 KB SRAM, 2 MB or 4 MB flash, ensuring efficient performance. In addition, it complies with WPA-PSK, WPA2-PSK and WPA3-SAE security standards.

The module is in LCC + DIP form factor with an ultra-compact size of 20.3 mm × 15.8 mm × 2.7 mm, which optimizes the size and cost for end-products and is compatible with diverse designs.

The module supports UART and GPIO interfaces by default. In the case of multiplexing, it can support PWM, SPI, I2C and ADC etc. With a variety of low-power modes and keep-alive mechanism, it can 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, light strips, smart sockets.

FCM740D supports the QuecOpen® solution and standard AT commands, has a compact protocol stack, which can realize efficient product development for customers.



### Key Features

- ✓ Wi-Fi 4 module, single band (2.4 GHz) Wi-Fi, 1 × 1 antenna
- ✓ PCB antenna or 1st RF coaxial connector
- ✓ BLE 5.2 and Wi-Fi pairing via Bluetooth
- ✓ Large memory, 256 KB SRAM, 2 MB or 4 MB flash
- ✓ Wide operating temperature range: -40 °C to +105 °C
- ✓ High stability, high reliability and full compatibility



IEEE 802.11b/g/n



BLE 5.2



Large Memory



Compact Size



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

# Quectel FCM740D

Wi-Fi 6 & BLE 5.2		FCM740D		
WLAN Protocol	IEEE 802.11b/g/n			
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			
Kernel	ARM968 (up to 120 MHz)			
SRAM	256 KB			
Flash	2 MB, 4 MB <sup>①</sup>			
Dimensions	20.3 mm × 15.8 mm × 2.7 mm			
Weight	Approx. 1.06 g			
<b>Temperature Range</b>				
Operating Temperature	-40 °C to +105 °C			
Storage Temperature	-45 °C to +115 °C			
<b>Certification</b>				
Regulatory	<b>Europe:</b> CE <b>America:</b> FCC <b>Canada:</b> IC <b>China:</b> SRRC <b>Australia/New Zealand:</b> RCM			
<b>Interfaces</b>				
Antenna Interface	× 1 (PCB antenna or 1st RF coaxial connector) (Optional)			
Other Interfaces <sup>②</sup>	UART/ GPIO/ PWM/ ADC/ SPI/ I2C			
<b>Electrical Features</b>				
Power Supply Voltage	3.0–3.6 V, Typ.3.3 V			
<b>RF performance</b>				
		<b>Receiver Sensitivity</b>	<b>Transmit Power</b>	
2.4 GHz	802.11b/1 Mbps	-96 dBm ±2 dB	16 dBm ±2 dB	
	802.11b/11 Mbps	-87 dBm ±2 dB	16 dBm ±2 dB	
	802.11g/6 Mbps	-90 dBm ±2 dB	15 dBm ±2 dB	
	802.11g/54 Mbps	-73.5 dBm ±2 dB	14 dBm ±2 dB	
	802.11n/HT20 MCS 0	-89 dBm ±2 dB	14 dBm ±2 dB	
	802.11n/HT20 MCS 7	-71 dBm ±2 dB	13 dBm ±2 dB	
BLE	1 Mbps	-95 dBm ±2 dB	6 dBm ±2 dB	
<b>Model</b>				
Model	Ordering Code	Flash	Antenna	Development Board (Only for Debugging)
FCM740D	FCM740DAAMD-0P-04	4 MB	PCB antenna	FCM740DAATB-0P-04
FCM740D	FCM740DAAMD-1X-04	4 MB	1st RF coaxial connector	FCM740DAATB-1X-04
FCM740D	FCM740DAAMD-0P-02	2 MB	PCB antenna	FCM740DAATB-0P-02
FCM740D	FCM740DAAMD-1X-02	2 MB	1st RF coaxial connector	FCM740DAATB-1X-02

## NOTE:

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