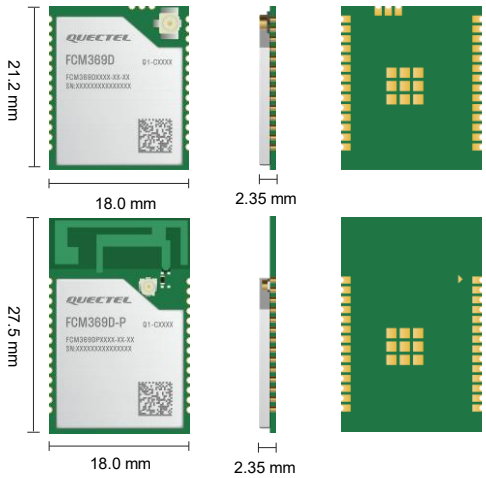
Quectel FCM369D series

Wi-Fi 6 Dual Band & BLE 5.2 & Thread



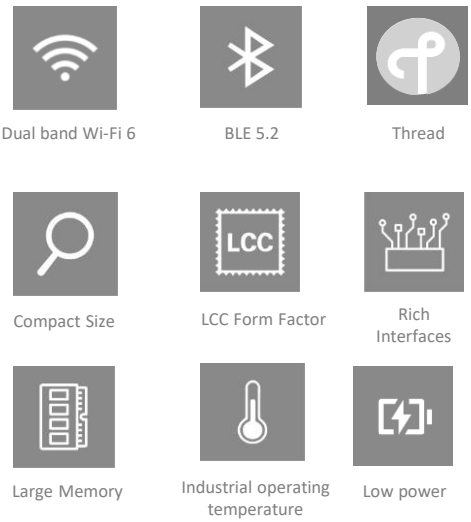
FCM369D series is a powerful triple-in-one MCU wireless module featuring dual-band Wi-Fi 6, Bluetooth, and Thread. It adopts an ARMv8 processor with main frequency up to 160 MHz. The module supports IEEE 802.11a/ b/ g/ n/ ac/ ax, BLE 5.2, and IEEE 802.15.4 protocols. It equipped with built-in 512 KB SRAM, optional 8 MB PSRAM and 4/ 8/ 16 MB Flash. The module supports HT20, HT40, and HE20 Wi-Fi bandwidth , and complies with the security protocols of WPA-PSK, WPA2-PSK, and WPA3-SAE.

FCM369D series adopts LCC stamp-hole SMD package. FCM369D can extend external antenna via the 1st generation RF coaxial connector or LCC RF interface, while FCM369D-P integrates a built-in PCB antenna for a more convenient design. The module is designed with a compact size, fully meeting the demands of terminal products for compact modules and is compatible with a wide range of structural designs.

In QuecOpen® solution, FCM369D series provides up to 19 GPIOs, which can be multiplexed as interfaces such as UART, SPI, I2C, I2S, ADC, SDIO, and PWM. Benefiting from its outstanding features including large bandwidth, lower power consumption, and Thread networking, as well as its large memories, it can be flexibly and widely used in applications of household appliances, security monitoring, Wi-Fi sensors, industrial IoT, smart commercial terminals, and new energy applications such as photovoltaics, energy storage, and charging piles. FCM369D series also supports AT commands, providing more efficient and convenient development approach for massive IoT devices migrating to dual-band Wi-Fi 6.

Key Features

- Wi-Fi 6 module, 2.4 GHz & 5 GHz dual band, 1 × 1 antenna
- BLE 5.2 and BLE for Wi-Fi provisioning
- IEEE 802.15.4 (Thread)
- 512 KB SRAM, 8 MB PSRAM and 4/ 8/ 16 MB flash (optional).
- 19 GPIOs multiplexed as UART, SPI, SDIO, I2S, and I2C, etc.
- 1st RF coaxial connector, LCC RF pin antenna interface, PCB antenna (optional) .



Version: 1.0.0 | Status: Preliminary

Quectel FCM369D Series

Wi-Fi 6 & BLE 5.2 & IEEE 802.15.4*	FCM369D	FCM369D-P
WLAN Protocol	IEEE 802.11a/ b/ g/ n/ ac/ ax	IEEE 802.11a/ b/ g/ n/ ac/ ax
Wi-Fi Frequency Band	2.4 GHz/ 5 GHz	2.4 GHz/ 5 GHz
Wi-Fi Modulation Mode	CCK/ BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM	CCK/ BPSK/ QPSK/ 16QAM/ 64QAM/ 256QAM
Wi-Fi Operating Mode	AP/ STA	AP/ STA
IEEE 802.15.4	Thread	Thread
Bluetooth Protocol	BLE 5.2	BLE 5.2
Encryption Mode	WPA-PSK/ WPA2-PSK/ WPA3-SAE	WPA-PSK/ WPA2-PSK/ WPA3-SAE
Internet Protocol	IPv6	IPv6
Kernel	ARMv8 single-core (up to 160 MHz)	ARMv8 single-core (up to 160 MHz)
SRAM	512 KB	512 KB
PSRAM (Optional)	8 MB	8 MB
Flash (Optional)	4/ 8/ 16 MB	4/ 8/ 16 MB
Dimensions	21.2 mm × 18.0 mm × 2.35 mm	27.5 mm × 18.0 mm × 2.35 mm
Weight	TBD	TBD
Temperature Range		
Operating Temperature (Optional)	-40 °C to +85 °C/ -40 °C to +105 °C	-40 °C to +85 °C/ -40 °C to +105 °C
Storage Temperature (Optional)	-45 °C to +95 °C/ -45 °C to +115 °C	-45 °C to +95 °C/ -45 °C to +115 °C
Certification		
Regulatory (Planning)	**Europe:** CE **America:** FCC **Canada:** IC **China:** SRRC **Australia/ New Zealand:** RCM	**Europe:** CE **America:** FCC **Canada:** IC **China:** SRRC **Australia/ New Zealand:** RCM
Interfaces		
Antenna Interface	× 1 (1st generation RF coaxial connector, LCC RF pin antenna, PCB antenna (optional)	×1 (PCB antenna)
Other Interfaces①	UART/ SPI/ I2C/ I2S/ PWM/ SDIO/ADC, etc.	UART/ SPI/ I2C/ I2S/ PWM/ SDIO/ADC, etc.
Electrical Features		
Power Supply Voltage	3.0–5.5 V, Typ. 3.3 V	3.0–5.5 V, Typ. 3.3 V

Ordering Code	Flash	PSRAM	Operating Temperature Range	Antenna	Development Board (Only for Debugging)
FCM369DAAMD-1X-04	4 MB	-	-40 °C to +105 °C	1st generation RF coaxial connector	FCM369DAATB-1X-04
FCM369DACMD-1X-04	4 MB	-	-40 °C to +85 °C	1st generation RF coaxial connector	FCM369DACTB-1X-04
FCM369DPACMD-0P-04	4 MB	-	-40 °C to +85 °C	PCB antenna	FCM369DPACTB-0P-04
FCM369DADMD-1X-08	8 MB	8 MB	-40 °C to +85 °C	1st generation RF coaxial connector	FCM369DADTB-1X-08
FCM369DPADMD-0P-08	8 MB	8 MB	-40 °C to +85 °C	PCB antenna	FCM369DPADTB-0P-08
FCM369DAEMD-1X-0A	16 MB	8 MB	-40 °C to +85 °C	1st generation RF coaxial connector	FCM369DAETB-1X-0A
FCM369DPAEMD-0P-0A	16 MB	8 MB	-40 °C to +85 °C	PCB antenna	FCM369DPAETB-0P-0A

NOTE:

1.①: See hardware design manual for details of the module interfaces.
2. *: Under development.
3.TBD: To be determined.

Copyright © 2026 Quectel Wireless Solutions Co., Ltd. All Rights Reserved http://www.quectel.com
Quectel Global Center: No. 8 Waipojing Road, Sijing Town, Songjiang District, Shanghai 201601, China
Tel: +86 21 51086236 Email: info@quectel.com