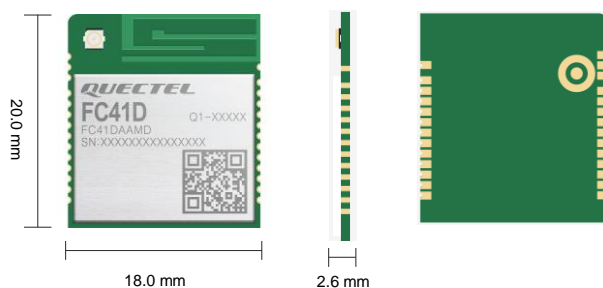


Quectel FC41D

Stand-alone Wi-Fi&Bluetooth Module Compact LCC Package



FC41D is a stand-alone Wi-Fi & Bluetooth 5.2 module newly launched by Quectel, which is of industrial standard, high cost performance and low cost. With a compact size of 20.0 mm × 18.0 mm × 2.6 mm, FC41D is an ideal Wi-Fi&Bluetooth solution for size-sensitive applications, and helps customers reduce product size and optimize application design cost.

The surface-mount technology enhances its durability and robustness. The LCC package ensures the easy embedding of the module into size-constrained applications, and provides reliable connectivity with these applications. The advanced package allows for largescale automated manufacturing which has strict requirements on cost and efficiency.

Based on stand-alone Wi-Fi&Bluetooth chip, FC41D can offer diversified applications for customers. Combined with its ultra-compact size, low power consumption, ultra-wide temperature range and high reliability, FC41D can meet the requirements of low flow control and data acquisition applications such as smart home and industrial control.



Key Features

- ✓ Support Bluetooth 5.2
- ✓ Support Wi-Fi (2.4 GHz), 1 × 1 SISO
- ✓ Support IEEE 802.11b/g/n standards
- ✓ Easier soldering and testing process with LCC package
- ✓ Support customers for secondary development
- ✓ Faster time to market: simple design minimizes design-in time and development efforts
- ✓ Support pin antenna, IPEX antenna, PCB antenna (Optional)



Ultra-compact Size



Operating Temperature Range: -40 °C to +85 °C



IEEE 802.11b/g/n



Bluetooth 5.2

Quectel FC41D

Wi-Fi&Bluetooth		FC41D	
Region	Global		
Function	2.4 GHz Wi-Fi, Low power Bluetooth 5.2		
WLAN	IEEE 802.11b/g/n		
Bluetooth	Bluetooth 5.2		
Modulation Mode	CCK/ BPSK/ QPSK/ 16QAM/ 64QAM		
Temperature Range			
Operating Temperature Range	-40 °C to +85 °C		
Storage Temperature Range	-45 °C to +95 °C		
Certifications			
Regulatory	Europe: CE America: FCC Canada: IC Brazil: Anatel China: SRRC Australia/New Zealand: RCM South Korea: KC		
Others	Bluetooth		
Interfaces			
UART	× 2		
I2C	× 1		
PWM	× 1		
GPIO	× 4		
Antenna Interfaces	× 1 (Pin antenna, IPEX antenna and PCB antenna are optional)		
Supply Voltage			
Power Supply Voltage	3.3 V		
I/O Power Supply Voltage	3.3 V		
General Features			
Encryption Mode	WPA2/ WPA3		
Internet	IPv4		
RAM	256 KB		
Flash	2 MB		
Working Mode	AP/ STA		
Dimension	20.0 mm × 18.0 mm × 2.6 mm		
Weight	1.05 g		
RF Performance			
		Receiving Sensitivity Typ. (dBm)	Output Power Typ. (dBm)
2.4 GHz	802.11b/1 Mbps	-96	16
	802.11b/11 Mbps	-87	16
	802.11g/6 Mbps	-91	15
	802.11g/54 Mbps	-74	14
	802.11n/HT20 MCS0	-90	14
	802.11n/HT20 MCS7	-71	13
BLE	1 Mbps	-95	6