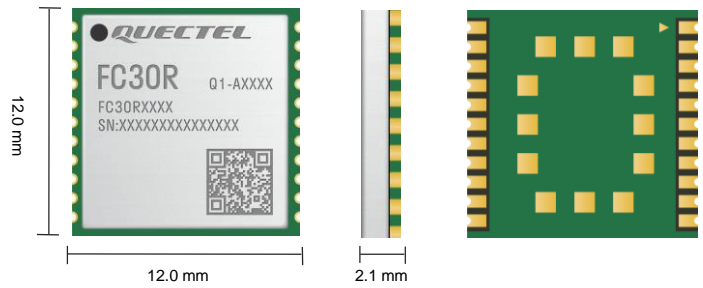




Quectel FC30R

Wi-Fi Module
Ultra-compact LCC Package



Quectel FC30R is a cost-effective, industrial grade Wi-Fi module featuring high performance and small size. With an ultra-compact size of 12.0 mm × 12.0 mm × 2.1 mm, it optimizes the size and cost for end-products, which fully meets the demands of size sensitive applications.

Surface-mount technology (SMT) makes FC30R an ideal solution for durable and rugged designs. The low profile and small size of LCC package ensure that FC30R can be easily embedded into size-constrained applications and provide reliable connectivity with these applications. The advanced package and the laser-engraved label with better heat dissipation and indelible markings allow for large-scale automated manufacturing which has strict requirements on cost and efficiency.

Combining advantages such as compact form factor, low power consumption, extended temperature range and stable SDIO interface, FC30R is typically used in combination with Quectel EC21 series, EC25 series, EC20-CE and EG25-G modules and other application processors (IMX6, IMX8, etc.) to serve a wide range of M2M applications, such as smart safety, industrial PDA, MiFi, and health care.



Key Features

- ✓ Ultra-compact and cost-effective Wi-Fi module
- ✓ Support IEEE 802.11 b/g/n standards
- ✓ Easier soldering and testing process with LCC package
- ✓ Stable and reliable SDIO communication interface
- ✓ Faster time to market: simple design minimizes design-in time and development efforts



Ultra-compact
Size



LCC Package



IEEE 802.11 b/g/n
Standards



SDIO Interface



Operating Temperature Range:
-30 °C to +85 °C

Quectel FC30R

Wi-Fi		FC30R	
Region	Global		
Function	2.4 GHz Wi-Fi		
WLAN	IEEE 802.11 b/g/n		
Modulation Mode	DBPSK, DQPSK, BPSK, QPSK, CCK, 16QAM, 64QAM		
Temperature Range			
Operating Temperature	-30 °C to +85 °C		
Data Rate (Max.)			
802.11b	11 Mbps		
802.11g	54 Mbps		
802.11n	150 Mbps		
Interfaces			
SDIO	× 1		
Antenna	× 1		
Electrical Features			
Power Supply Voltage	3.0–3.6 V, Typ. 3.3 V		
I/O Power Supply Voltage	<ul style="list-style-type: none"> 1.75–1.89 V, Typ. 1.8 V 3.0–3.6 V, Typ. 3.3 V 		
Power Consumption (Typ.)	OFF State: 31 µA @ VDD_3V3 power supply 1 µA @ VDD_SDIO power supply Idle (no connection): 60 mA @ VDD_3V3 power supply 2 mA @ VDD_SDIO power supply		
General Features			
Encryption Mode	WPA3		
AP (Max. Access Points)	16		
Operating Mode	AP/STA		
Dimension	12.0 mm × 12.0 mm × 2.1 mm		
Weight	Approx. 0.58 g		
Certification			
Regulatory	Europe: CE America: FCC Canada: IC China: SRRC South Korea: KC* Japan: JATE/TELEC Australia/New Zealand: RCM		
RF Performance			
	Receiving Sensitivity (Typ.)	Transmitting Power (Range)	
802.11b/1 Mbps	-93 dBm	16 ±2.5 dBm	
802.11b/11 Mbps	-86 dBm	16 ±2.5 dBm	
802.11g/6 Mbps	-87 dBm	16 ±2.5 dBm	
802.11g/54 Mbps	-70 dBm	14 ±2.5 dBm	
802.11n (HT20)/MCS 0	-87 dBm	15 ±2.5 dBm	
802.11n (HT40)/MCS 0	-84 dBm	15 ±2.5 dBm	
802.11n (HT20)/MCS 7	-68 dBm	13 ±2.5 dBm	
802.11n (HT40)/MCS 7	-64 dBm	13 ±2.5 dBm	

NOTE:

* means planning.