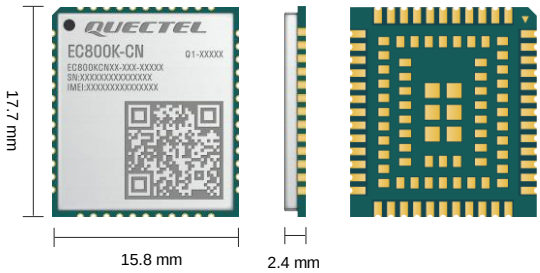
Quectel EC800K-CN

IoT/ M2M-optimized LTE Cat 1 Module



This document is only applicable to the EC800K-CN industrial-grade module.

EC800K-CN is an LTE Cat 1 wireless communication module specially designed by Quectel for M2M and IoT applications. It supports maximum data rates of 10 Mbps downlink and 5 Mbps uplink and has an ultra-high cost performance. Designed in the compact and unified form factor, EC800K-CN is compatible with LTE Standard EC800E-CN, EC800G-CN, EC800M-CN, EC800N-CN and EG800K series module in package.

EC800K-CN adopts the laser engraving process to get a more fashionable appearance, strong metallic texture, better heat dissipation, durable label information, which makes it more suitable for automation requirements.

A rich set of Internet protocols, industry-standard interfaces, a variety of drivers and abundant functionalities (USB serial drivers for Windows 8/ 8.1/ 10/ 11, Linux, Android and other operating systems) extend the applicability of the module to a wide range of M2M and IoT applications such as cloud trumpet, tracker, POS, IPC, data card, smart safety and industrial PDA.

Key Features

- Ultra-small size, designed for M2M and IoT applications, especially for small-size terminals
- Support DFOTA
- Support Wi-Fi Scan (Optional)
- Super cost-effective

LTE Cat 1
Max. 10 Mbps (DL)
Max. 5 Mbps (UL)

LCC Package

Embedded
Abundant Protocols

USB 2.0 High Speed Interface

USB Drivers

DFOTA

Quectel Enhanced AT Commands

Quectel EC800K-CN

LTE Cat 1		EC800K-CN
Region/ Operator		China/ India
Package		LCC
Dimensions (mm)		17.7 × 15.8 × 2.4
Weight (g)		Approx. 1.27
Temperature Range		
Operating Temperature		-35 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
LTE-FDD		B1/ 3/ 5/ 8
LTE-TDD		B34/ 38/ 39/ 40/ 41
Certifications		
Carrier		**China:** China Mobile
Regulatory		**China:** SRRC/ NAL/ CCC
Others		WHQL
Max. Data Rates		
LTE-FDD (Mbps)		10 (DL)/ 5 (UL)
LTE-TDD (Mbps)		8.96 (DL)/ 3.1 (UL)
Interfaces		
USIM		× 1, 1.8/ 3.0 V
UART		× 3 (main, debug and auxiliary*①)
USB 2.0		× 1
ADC		× 2
NET_STATUS		× 1
STATUS		× 1
I2C*①		× 1 (QuecOpen® solution: × 2)
LCM②		× 1
SPI②		× 1
Matrix Keypad (3× 4)②		× 1
USB_BOOT		× 1
RESET_N		× 1
PWRKEY		× 1
LTE/ Wi-Fi Scan Antenna		× 1
Enhanced Features		
DFOTA		●
Wi-Fi Scan		○
QuecPython®		○
USIM Card Detection		●
Software Features		
Protocols		TCP/ UDP/ PPP③/ NTP/ NITZ/ FTP③/ HTTP③/ PING/ HTTPS③/ FTPS③/ SSL/ FILE③/ MQTT
Drivers	**RIL**	Android 4.x–13.x
	USB RNDIS	Windows 8/ 8.1/ 10/ 11 Linux 2.6–6.7
	USB ECM	Linux 2.6–6.7
	USB Serial	Windows 8/ 8.1/ 10/ 11 Linux 2.6–6.7 Android 4.x–13.x
Electrical Features		
Supply Voltage Range		3.4~4.3 V，typ. 3.8 V
Power Consumption (Typical)		6.42 μA @ Power off 0.64 mA @ LTE-FDD Sleep (PF = 128) 0.55 mA @ LTE-FDD Sleep (PF = 256) 8.00 mA @ LTE-TDD Idle (PF = 64 USB disconnected) 20.69 mA @ LTE-TDD Idle (PF = 64 USB connected)

NOTE:

1. *: Under development.
2. ①: The interface is under development in standard solution. While in QuecOpen® solution, the interface has been supported.
3. ②: Only supported by QuecOpen® solution.
4. ③: The protocol is optional.
5. ●: Supported.
6. ○: Optional.

HQ address: Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China
Tel: +86 21 51086236 Email: info@quectel.com