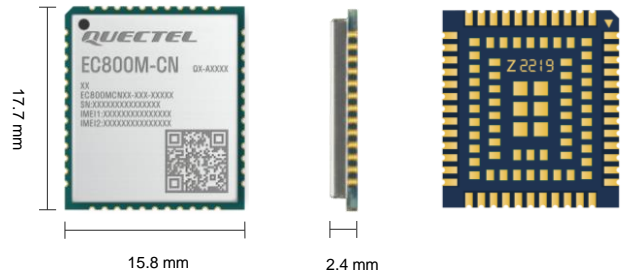


Quectel EC800M-CN

IoT/ M2M-optimized LTE Cat 1 Module



EC800M-CN is a cost-effective LTE Cat 1 wireless communication module specially designed by Quectel for M2M and IoT fields. It delivers a maximum downlink rate of 10 Mbps and a maximum uplink rate of 5 Mbps. Designed in the compact and unified form factor, EC800M-CN is compatible with LTE Standard EC800E-CN, EC800G-CN, EC800N-CN , EC800K-CN and EG800K series module in package.

EC800M-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 and abundant functionalities (USB serial drivers for Windows 8/ 8.1/ 10/ 11, Linux, Android) 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 remote DFOTA, reducing later operation and maintenance costs
- ✓ Dual SIM Single Standby Single Pass (Optional)
- ✓ Support GNSS (Optional)
- ✓ Support Wi-Fi Scan
- ✓ 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



GNSS (Optional)



VoLTE (Optional)



Quectel Enhanced
AT Commands



DFOTA



Dual SIM Single Standby
Single Pass (Optional)

Quectel EC800M-CN

LTE Cat 1		EC800M-CN
Region/ Operator	China/ India	
Package	LCC	
Dimensions	17.7 mm × 15.8 mm × 2.4 mm	
Weight	Approx. 1.4 g	
Temperature Range		
Operating Temperature Range	-35 °C to +75 °C	
Extended Temperature Range	-40 °C to +85 °C	
Frequency Bands		
LTE-FDD	B1/ 3/ 5/ 8	
LTE-TDD	B34/ 38/ 39/ 40/ 41	
GNSS (Optional)	GPS/ BDS/ GLONASS/ Galileo	
Certifications		
Carrier	China: China Telecom/ China Mobile	
Regulatory	China: SRRC/ NAL/ CCC	
Others	WHQL	
Data Rates		
LTE-FDD (Mbps)	10 (DL)/ 5 (UL)	
LTE-TDD (Mbps)	8.96 (DL)/ 3.1 (UL)	
Interfaces		
USIM ^①	× 2, 1.8/ 3.0 V	
UART	× 3 (Main, Debug and Auxiliary*)	
USB 2.0	× 1	
Analog Audio (Optional)	Input: × 1 (Microphone) Output: × 1 (Earpiece)	
PCM (Digital Audio) (Optional)	× 1	
ADC	× 2	
NET_STATUS	× 1	
STATUS	× 1	
I2C	× 1 (QuecOpen [®] solution: × 2)	
LCM ^②	× 1	
Camera ^②	× 1	
Matrix Keyboard (5 × 5) ^②	× 1	
USB_BOOT	× 1	
RESET_N	× 1	
PWRKEY	× 1	
Antennas	× 2 (Main Antenna and GNSS Antenna (Optional))	
Audio (Optional)		
Speech Codec Modes	MP3/ AMR/ WAV	
Audio	Digital Audio, Analog Audio and VoLTE (Voice over LTE)	
Enhanced Features		
DFOTA	Supported	
DTMF	Optional	
Audio Playback/ Audio Recording	Optional	
QuecOpen [®]	Optional	
QuecLocator [®]	Optional	
QuecFile [®]	Supported	
(U)SIM1 Card Detection	Supported	
Software Features		
Protocols	TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX*/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS*/ SMTP*/ SMTPTS*	
Drivers	RIL	Android 4.x~13.x
	USB RNDIS	Windows 8/ 8.1/ 10/ 11 Linux 2.6~6.5
	USB ECM	Linux 2.6~6.5
	USB Serial	Windows 8/ 8.1/ 10/ 11 Linux 2.6~6.5
	GNSS (Optional)	Android 4.x~13.x
		Android 4.x~13.x
Electrical Features		
Supply Voltage Range	3.4~4.3 V, typ. 3.8 V 38 μA @ Power off 1.34 mA @ LTE Sleep (PF = 128)	
Power Consumption (Typical)	1.24 mA @ LTE Sleep (PF = 256) 17.3 mA @ Idle (PF = 64 USB disconnected) 30.3 mA @ Idle (PF = 64 USB connected)	

NOTE:

- *: Under development.
- ①: USIM 2 is optional.
- ②: Only supported by QuecOpen[®] solution.
- : Supported.
- : Optional.