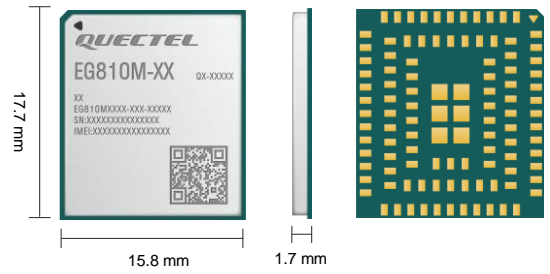


Quectel EG810M Series

IoT/ M2M-optimized LTE Cat 1 bis Module



EG810M series is a series of LTE Cat 1 bis wireless communication modules 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, EG810M-EU is compatible with LTE Standard EC800M-CN, EC800K-CN and EG800K series module in package.

EG810M series contains 3 variants: EG810M-CN, EG810M-EU and EG810M-LA. EG810M series 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 8.1/ 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, and its ultra-thin design (1.7 mm in thickness) is also very suitable for thickness-critical products such as ear-hook walkie-talkies, student cards, and watches.



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
- ✓ Support Wi-Fi Scan (Optional)
- ✓ Support GNSS (Optional)
- ✓ Super cost-effective



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



LGA Package



Embedded
Abundant Protocols



USB 2.0 High Speed
Interface



Wi-Fi Scan (Optional)



VoLTE



Quectel Enhanced
AT Commands



DFOTA



USB Drivers

Quectel EG810M Series

LTE Cat 1 bis	EG810M-CN	EG810M-EU	EG810M-LA
Region/ Operator	China/ India	Europe/ New Zealand/ Australia	Latin America
Package	LGA	LGA	LGA
Dimensions (mm)	17.7 × 15.8 × 1.7	17.7 × 15.8 × 1.7	17.7 × 15.8 × 1.7
Weight (g)	Approx. 0.98	Approx. 0.98	Approx. 1.03
Temperature Range			
Operating Temperature	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands			
LTE-FDD	B1/ 3/ 5/ 8	B1/ 3/ 5/ 7/ 8/ 20/ 28	B2/ 3/ 4/ 5/ 7/ 8/ 28/ 66
LTE-TDD	B34/ 38/ 39/ 40/ 41	-	-
GNSS	GPS/ BDS/ GLONASS/ Galileo	-	-
Certifications			
Regulatory	China: SRRC/ NAL/ CCC	Europe: CE Australia/ New Zealand: RCM	America: FCC* Brazil: Anatel*
Others	WHQL	WHQL	WHQL
Max. Data Rates			
LTE-FDD (Mbps)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)
LTE-TDD (Mbps)	8.96 (DL)/ 3.1 (UL)	-	-
Interfaces			
USIM	× 1, 1.8/ 3.0 V ^①	× 2, 1.8/ 3.0 V ^①	× 1, 1.8/ 3.0 V
UART	× 3 (main, debug and auxiliary ^②)	× 3 (main, debug and auxiliary ^②)	× 3 (main, debug and auxiliary ^②)
USB 2.0	× 1	× 1	× 1
Analog Audio (Optional)	Input: × 1 (Microphone) Output: × 1 (Earpiece)	Input: × 1 (Microphone) Output: × 1 (Earpiece)	Input: × 1 (Microphone) Output: × 1 (Earpiece)
PCM (Digital Audio) (Optional)	× 1	× 1	× 1
ADC	× 2	× 2	× 2
NET_STATUS	× 1	× 1	× 1
STATUS	× 1	× 1	× 1
I2C (Optional)	× 1 (QuecOpen [®] solution: × 2)	× 1 (QuecOpen [®] solution: × 2)	× 1 (QuecOpen [®] solution: × 2)
LCM ^②	× 1	× 1	× 1
PWM ^②	× 4	× 4	× 4
Camera ^②	× 1	× 1	× 1
Matrix Keypad ^②	× 1 (5 × 5)	× 1 (3 × 3)	× 1 (3 × 3)
SPI ^②	× 3	× 3	× 3
USB_BOOT	× 1	× 1	× 1
RESET_N	× 1	× 1	× 1
PWRKEY	× 1	× 1	× 1
GNSS Antenna (Optional)	× 1	-	-
LTE/ Wi-Fi Scan Antenna	× 1	× 1	× 1
Audio (Optional)			
Speech codec mode	MP3/ AMR/ WAV	MP3/ AMR/ WAV	MP3/ AMR/ WAV
Voice	VoLTE (Voice over LTE)	VoLTE (Voice over LTE)	VoLTE (Voice over LTE)
Enhanced Features			
DFOTA	●	●	●
DTMF	○	○	-
Audio Playback/ Audio Recording	○	○	-
Wi-Fi Scan	○	○	○
QuecOpen [®]	○	○	○
QuecPython [®]	○	○	○
QuecFile [®]	●	●	●
USIM Card Detection	●	●	●

- NOTE:
1. *: In progress.
2. ①: Only USIM 1 supports USIM card detection.
3. ②: Only supported by QuecOpen[®] solution.
4. ●: Supported.
5. ○: Optional.

Quectel EG810M Series

LTE Cat 1 bis	EG810M-CN	EG810M-EU	EG810M-LA
Software Features			
Protocols	TCP/UDP/PPP/NTP/NITZ/FTP/HTTP/PING/HTTPS/FTPS/SSL/FILE/MQTT/CMUX*/MMS*/SMTP*/SMTPS*	TCP/UDP/PPP/NTP/NITZ/FTP/HTTP/PING/HTTPS/FTPS/SSL/FILE/MQTT/CMUX*/MMS*/SMTP*/SMTPS*	TCP/UDP/PPP*/NTP/NITZ/FTP*/HTTP*/PING/HTTPS*/FTPS*/SSL/FILE*/MQTT*/CMUX*/MMS*/SMTP*/SMTPS*
Drivers			
RIL	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x
USB RNDIS	Windows 8.1/ 10/ 11 Linux 2.6–6.7	Windows 8.1/ 10/ 11 Linux 2.6–6.7	Windows 8.1/ 10/ 11 Linux 2.6–6.7
USB ECM	Linux 2.6–6.7	Linux 2.6–6.7	Linux 2.6–6.7
USB Serial	Windows 8.1/ 10/ 11 Linux 2.6–6.7 Android 4.x–13.x	Windows 8.1/ 10/ 11 Linux 2.6–6.7 Android 4.x–13.x	Windows 8.1/ 10/ 11 Linux 2.6–6.7 Android 4.x–13.x
Electrical Characteristics			
Power Supply	3.4–4.3 V, typ. 3.8 V	3.4–4.3 V, typ. 3.8 V	3.4–4.3 V, typ. 3.8 V
Power Consumption (Typical)	17.7 μ A @ Power off 1.0 mA @ LTE Sleep 18.2 mA @ Idle (USB disconnected) 31.2 mA @ Idle (USB connected)	17.6 μ A @ Power off 0.73 mA @ LTE Sleep 19.2 mA @ Idle (USB disconnected) 29.3 mA @ Idle (USB connected)	10.0 μ A @ Power off 0.79 mA @ LTE Sleep 16.99 mA @ Idle (USB disconnected) 28.75 mA @ Idle (USB connected)

NOTE:

*: Under development.