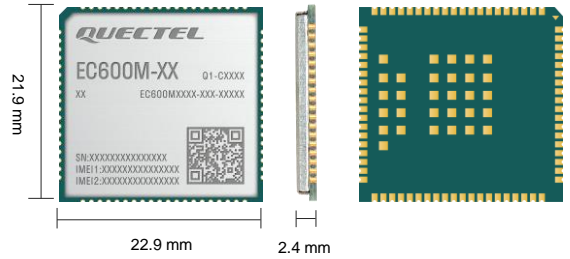


Quectel EC600M Series

IoT/ M2M-optimized LTE Cat 1 bis Module



EC600M series is a series of cost-effective LTE Cat 1 bis wireless communication module specially designed by Quectel for M2M and IoT fields. The modules deliver a maximum downlink rate of 10 Mbps and a maximum uplink rate of 5 Mbps. Designed in the compact and unified form factor, EC600M series is compatible with LTE Standard EC600N-CN in package.

EC600M series contains two variants: EC600M-EU and EC600M-LA. The module 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.

EC600M series module supports interfaces such as camera, LCM, matrix keyboard, and audio to adapt to more intelligent product terminals, such as smart POS and smart handheld terminals and other high-end products.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 8.1/ 10/ 11, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as OTT, CPE, POS, 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
- ✓ Support Wi-Fi Scan
- ✓ Dual SIM Single Standby
- ✓ Super cost-effective



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



LCC Package



Embedded
Abundant Protocols



USB 2.0 High Speed
Interface



USB Drivers



VoLTE (Optional)



Quectel Enhanced
AT Commands



DFOTA



Dual SIM Single Standby

Quectel EC600M Series

LTE Cat 1 bis	EC600M-EU	EC600M-LA
Region/ Operator	Europe	Latin America
Package	LCC	LCC
Dimensions (mm)	21.9 × 22.9 × 2.4	21.9 × 22.9 × 2.4
Weight (g)	Approx. 2.0	Approx. 2.0
Temperature Range		
Operating Temperature	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands		
LTE-FDD	B1/ 3/ 5/ 7/ 8/ 20/ 28	B2/ 3/ 4/ 5/ 7/ 8/ 28/ 66
LTE-TDD	B38/ 40/ 41	-
Certifications		
Regulatory	Europe: CE	Brazil: Anatel*
Others	WHQL	WHQL
Max. Data Rates		
LTE-FDD (Mbps)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)
LTE-TDD (Mbps)	8.96 (DL)/ 3.1 (UL)	-
Interfaces		
USIM ^①	× 2, 1.8/ 3.0 V	× 2, 1.8/ 3.0 V
UART	× 3 (Main, Debug and Auxiliary ^②)	× 3 (Main, Debug and Auxiliary ^②)
USB 2.0	× 1	× 1
PCM (Digital Audio) (Optional)	× 1	× 1
ADC	× 2, 12 bits	× 2, 12 bits
SPI (Optional) ^②	× 2	× 2
Matrix Keyboard (5 × 5) (Optional) ^②	× 1	× 1
PWM (Optional) ^②	× 4	× 4
Camera (Optional)	× 1	× 1
LCM (Optional) ^②	× 1	× 1
I2C (Optional)	× 1	× 1
Analog Audio (Optional)	Input: × 1 (Microphone) Output: × 1 (Earpiece)	Input: × 1 (Microphone) Output: × 1 (Earpiece)
Antenna	× 1	× 1
Voice (Optional)		
Speech Codec Modes	MP3/ AMR/ WAV	MP3/ AMR/ WAV
Voice	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)
Enhanced Features		
DTMF	○	○
DFOTA	●	●
Audio Playback/ Audio Recording	○	○
Wi-Fi Scan	●	●
QuecOpen [®]	○	○
QuecFile [®]	●	●
USIM Card Detection	●	●
Drivers		
RIL	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
USB ECM	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
Electrical Features		
Supply Voltage Range	3.4–4.3 V, typ. 3.8 V 20.20 µA @ Power off 1.23 mA @ LTE-FDD Sleep (PF = 128) 1.12 mA @ LTE-FDD Sleep (PF = 256)	3.4–4.3 V, typ. 3.8 V 20.25 µA @ Power off 1.28 mA @ LTE-FDD Sleep (PF = 128) 1.18 mA @ LTE-FDD Sleep (PF = 256)
Power Consumption (Typical)	17.92 mA @ LTE-TDD Idle (PF = 64 USB Disconnected) 29.72 mA @ LTE-TDD Idle (PF = 64 USB Connected)	16.05 mA @ LTE-TDD Idle (PF = 64 USB Disconnected) 27.56 mA @ LTE-TDD Idle (PF = 64 USB Connected)

NOTE:

1. *: In progress.
2. ①: USIM2 is optional.
3. ②: Supported only by the QuecOpen[®] solution.

4. ○: Optional.
5. ●: Supported.