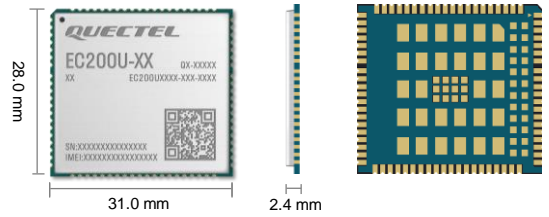


# Quectel EC200U Series

## IoT/ M2M-optimized LTE Cat 1bis Module



Quectel EC200U is a series of LTE Cat 1bis module optimized specially for M2M and IoT applications. Adopting 3GPP Rel-13 LTE technology, it delivers maximum data rates up to 10 Mbps downlink and 5 Mbps uplink. Designed in the compact and unified form factor, EC200U series is compatible with Quectel multi-mode LTE Standard EC20-CE, EC21 series, EC25 series, EG21-G and EG25-G, ensuring that it can easily migrate among compatible modules. EC200U series also supports standard Mini PCIe packages to meet the needs of different industry applications.

EC200U series contains three variants: EC200U-CN, EC200U-EU and EC200U-AU, which meets the frequency band coverage of different countries and regions. Adopting laser engraving process, EC200U series features a more fashionable appearance, strong metallic texture, better heat dissipation capability and durable label information, which makes it ideally suited for automation requirement.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB drivers for Windows 10/ 11, Linux, Android) extend the applicability of EC200U series to a wide range of M2M and IoT applications such as POS, POC, ETC, shared equipment, data card, energy control and monitoring, smart safety and protection, and industrial PDA.



### Key Features

- ✓ LTE Cat 1bis module optimized for M2M and IoT applications
- ✓ Worldwide LTE, GSM/ GPRS coverage
- ✓ Abundant functional interfaces
- ✓ Support analog audio
- ✓ Built-in GNSS (optional)
- ✓ Feature refinements: support Wi-Fi Scan (optional), Bluetooth (optional) and FOTA
- ✓ High performance



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



LCC Package



Embedded Abundant  
Protocols



FOTA



Bluetooth  
(Optional)



GNSS (Optional)



USB 2.0 High Speed  
Interface



Wi-Fi Scan  
(Optional)



Quectel Enhanced AT  
Commands

# Quectel EC200U Series

LTE Cat 1bis	EC200U-CN	EC200U-EU	EC200U-AU
<b>Region/ Operator</b>	China/ India	EMEA/ Australia/ New Zealand	Latin America
<b>Dimensions (mm)</b>	28.0 × 31.0 × 2.4	28.0 × 31.0 × 2.4	28.0 × 31.0 × 2.4
<b>Weight (g)</b>	Approx. 4.1	Approx. 4.1	Approx. 4.1
<b>Temperature Range</b>			
<b>Operating Temperature</b>	-35 °C to +75 °C	-35 °C to +75 °C	-35 °C to +75 °C
<b>Extended Temperature</b>	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
<b>Frequency Bands</b>			
<b>LTE-FDD</b>	B1/ 3/ 5/ 8	B1/ 3/ 5/ 7/ 8/ 20/ 28	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 28/ 66
<b>LTE-TDD</b>	B34/ 38/ 39/ 40/ 41	B38/ 40/ 41	B38/ 40/ 41
<b>GSM</b>	Optional, B3/ 8	B2/ 3/ 5/ 8	B2/ 3/ 5/ 8
<b>GNSS (Optional)</b>	GPS/ BDS/ Galileo/ GLONASS/ QZSS	GPS/ BDS/ Galileo/ GLONASS/ QZSS	GPS/ BDS/ Galileo/ GLONASS/ QZSS
<b>Bluetooth (Optional)</b>	Bluetooth 4.2 (BR/ EDR + BLE)	Bluetooth 4.2 (BR/ EDR + BLE)	Bluetooth 4.2 (BR/ EDR + BLE)
<b>Wi-Fi Scan (Optional)</b>	2.4 GHz 11b (Rx)	2.4 GHz 11b (Rx)	2.4 GHz 11b (Rx)
<b>Bandwidth</b>	1.4/ 3/ 5/ 10/ 15/ 20 MHz	1.4/ 3/ 5/ 10/ 15/ 20 MHz	1.4/ 3/ 5/ 10/ 15/ 20 MHz
<b>Certifications</b>			
<b>Regulatory</b>	<b>China:</b> SRRC/ NAL/ CCC	<b>Europe:</b> CE <b>Australia/ New Zealand:</b> RCM <b>South Korea:</b> KC	<b>America:</b> FCC <b>Brazil:</b> Anatel
<b>Carrier</b>	<b>China:</b> China Telecom/ China Mobile/ China Unicom	<b>South Korea:</b> KT	
<b>Max. Data Rate</b>			
<b>LTE-FDD (Mbps)</b>	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)
<b>LTE-TDD (Mbps)</b>	8.96 (DL)/ 3.1 (UL)	8.96 (DL)/ 3.1 (UL)	8.96 (DL)/ 3.1 (UL)
<b>GSM (kbps)</b>	85.6 (DL)/ 85.6 (UL)	85.6 (DL)/ 85.6 (UL)	85.6 (DL)/ 85.6 (UL)
<b>Interfaces</b>			
<b>(U)SIM</b>	× 2 ((U)SIM2 is optional)	× 2 ((U)SIM2 is optional)	× 2 ((U)SIM2 is optional)
<b>UART</b>	× 3	× 3	× 3
<b>USB 2.0</b>	× 1	× 1	× 1
<b>Audio Digital (PCM)</b>	× 1	× 1	× 1
<b>Audio Analog</b>	× 2 (Microphone, Loudspeaker)	× 2 (Microphone, Loudspeaker)	× 2 (Microphone, Loudspeaker)
<b>ADC</b>	× 3	× 3	× 3
<b>SPI</b>	× 1 (QuecOpen®)	× 1 (QuecOpen®)	× 1 (QuecOpen®)
<b>SD Card</b>	× 1	× 1	× 1
<b>RESET_N</b>	× 1	× 1	× 1
<b>PWRKEY</b>	× 1	× 1	× 1
<b>I2C</b>	× 2	× 2	× 2
<b>LCM</b>	× 1 (QuecOpen®)	× 1 (QuecOpen®)	× 1 (QuecOpen®)
<b>Camera</b>	× 1 (QuecOpen®)	× 1 (QuecOpen®)	× 1 (QuecOpen®)
<b>Matrix Keypad (4 × 4) ①</b>	× 1 (QuecOpen®)	× 1 (QuecOpen®)	× 1 (QuecOpen®)
<b>Wi-Fi Scan/ Bluetooth Antenna (Optional)</b>	× 1	× 1	× 1
<b>GNSS Antenna (Optional)</b>	× 1	× 1	× 1
<b>Main Antenna</b>	× 1	× 1	× 1
<b>Enhanced Features</b>			
<b>FOTA</b>	●	●	●
<b>BLE (Bluetooth 4.2)</b>	○	○	○
<b>Wi-Fi Scan</b>	○	○	○
<b>GNSS</b>	○	○	○
<b>Audio Playback/ Audio Recording</b>	●	●	●
<b>QuecPython®</b>	●	●	●
<b>QuecFile®</b>	●	●	●
<b>(U)SIM Card Detection</b>	●	●	●
<b>Software Features</b>			
<b>Protocols</b>	TCP/ UDP/ PPP/ NITZ/ PING/ FILE/ MQTT/ NTP/ HTTP/ HTTPS/ SSL/ FTP/ FTPS/ CMUX/ MMS ②	TCP/ UDP/ PPP/ NITZ/ PING/ FILE/ MQTT/ NTP/ HTTP/ HTTPS/ SSL/ FTP/ FTPS/ CMUX/ MMS ②	TCP/ UDP/ PPP/ NITZ/ PING/ FILE/ MQTT/ NTP/ HTTP/ HTTPS/ SSL/ FTP/ FTPS/ CMUX/ MMS ②
<b>Driver</b>	<b>RIL Driver</b>	Android 4.x–14.x	Android 4.x–14.x
	<b>USB RNDIS Driver</b>	Windows 10/ 11, Linux 2.6–6.7	Windows 10/ 11, Linux 2.6–6.7
	<b>GNSS Driver (Optional)</b>	Android 4.x–14.x	Android 4.x–14.x
	<b>USB ECM Driver</b>	Linux 2.6–6.7	Linux 2.6–6.7
	<b>USB Serial Driver</b>	Windows 10/ 11, Linux 2.6–6.7, Android 4.x–14.x	Windows 10/ 11, Linux 2.6–6.7, Android 4.x–14.x
<b>Electrical Features</b>			
<b>Supply Voltage Range</b>	3.3–4.3 V, Typ. 3.8 V	3.3–4.3 V, Typ. 3.8 V	3.3–4.3 V, Typ. 3.8 V
<b>Power Consumption (Typical)</b>	31 µA @ Power Off	31 µA @ Power Off	30 µA @ Power Off
	1.4 mA @ LTE Sleep (PF = 128)	1.5 mA @ LTE Sleep (PF = 128)	1.4 mA @ LTE Sleep (PF = 128)
	1.2 mA @ LTE Sleep (PF = 256)	1.4 mA @ LTE Sleep (PF = 256)	1.2 mA @ LTE Sleep (PF = 256)
	28.7 mA @ Idle (PF = 64, USB Connected)	27.9 mA @ Idle (PF = 64, USB Connected)	27.8 mA @ Idle (PF = 64, USB Connected)
	12.7 mA @ Idle (PF = 64, USB Disconnected)	12.7 mA @ Idle (PF = 64, USB Disconnected)	12.5 mA @ Idle (PF = 64, USB Disconnected)

## NOTE:

- : Supported.
- : Optional.
- ①: GNSS function is optional. If the chosen module variant supports GNSS function, 4 × 4 matrix keypad is supported; Otherwise 4 × 6 matrix keypad is supported.
- ②: MMS protocol is optional.