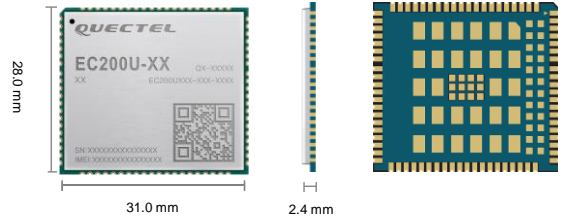


Quectel EC200U Series

IoT/M2M-optimized LTE Cat 1 Module



Quectel EC200U series is a series of the latest LTE Cat 1 module optimized specially for M2M and IoT applications. 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 EC25 series/EC21 series/EC20 R2.1/EC20-CN/EC200T series/EC200S series/EC25-G/EC21-G and UMTS/HSPA+ UC200T series, ensuring that it can easily migrate from 3G to 4G network. 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.

EC200U series has a rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB drivers for Windows 7/8/8.1/10, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as POS/POC/ETC, shared equipment, data card, energy control and monitoring, security and protection, and industrial PDA.



Key Features

- ✓ LTE Cat 1 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 1
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 1	EC200U-CN	EC200U-EU	EC200U-AU*
Region/Operator	China	EMEA	Australia/Latin America
Dimensions (mm)	28.0 × 31.0 × 2.4	28.0 × 31.0 × 2.4	28.0 × 31.0 × 2.4
Weight (g)	Approx. 4.1	Approx. 4.1	Approx. 4.1
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/B3/B5/B8	B1/B3/B5/B7/B8/B20/B28	B1/B2/B3/B4/B5/B7/B8/B28/B66
LTE-TDD	B34/B38/B39/B40/B41	B38/B40/B41	B38/B40/B41
GSM	B3/B8	B2/B3/B5/B8	B2/B3/B5/B8
GNSS	GPS/BeiDou	GPS/BeiDou/Galileo/GLONASS	GPS/BeiDou/Galileo/GLONASS
BLE	Bluetooth 4.2 (BR/EDR)	Bluetooth 4.2 (BR/EDR)	Bluetooth 4.2 (BR/EDR)
Wi-Fi	2.4 GHz 11b (RX)	2.4 GHz 11b (RX)	2.4 GHz 11b (RX)
Bandwidth	1.4/3/5/10/15/20 MHz	1.4/3/5/10/15/20 MHz	1.4/3/5/10/15/20 MHz
Certifications			
Regulatory	China: SRRC/ NAL/ CCC	Europe: CE Australia/New Zealand: RCM	America: FCC Brazil: Anatel
Carrier	China: China Telecom/ China Mobile/ China Unicom		
Max. Data Rate			
LTE-FDD (Mbps)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)	10 (DL)/ 5 (UL)
LTE-TDD (Mbps)	8.96 (DL)/ 3.1 (UL)	8.96 (DL)/ 3.1 (UL)	8.96 (DL)/ 3.1 (UL)
GSM (kbps)	85.6 (DL)/ 85.6 (UL)	85.6 (DL)/ 85.6 (UL)	85.6 (DL)/ 85.6 (UL)
Interfaces			
(U)SIM	× 1	× 1	× 1
UART	× 3	× 3	× 3
USB 2.0	× 1	× 1	× 1
Audio Digital (PCM)	× 1	× 1	× 1
Audio Analog	× 2 (Microphone, Loudspeaker)	× 2 (Microphone, Loudspeaker)	× 2 (Microphone, Loudspeaker)
ADC	× 3	× 3	× 3
SPI	× 1	× 1	× 1
SD Card	× 1	× 1	× 1
RESET	× 1	× 1	× 1
PWERKEY	× 1	× 1	× 1
I2C	× 2	× 2	× 2
LCD	× 1	× 1	× 1
Camera	× 1 (QuecOpen®)	× 1 (QuecOpen®)	× 1 (QuecOpen®)
Matrix Keyboard	× 1 (4 × 4)	× 1 (4 × 4)	× 1 (4 × 4)
Wi-Fi Scan/Bluetooth Antenna	× 1	× 1	× 1
GNSS Antenna	× 1	× 1	× 1
Main Antenna	× 1	× 1	× 1
Enhanced Features			
FOTA	●	●	●
BLE (Bluetooth 4.2)	○	○	○
Wi-Fi Scan	○	○	○
GNSS	○	○	○
Audio Playback/ Audio Recording	●	●	●
QuecLocator®	●	●	●
QuecPython®	●	●	●
QuecFile®	●	●	●
(U)SIM Card Detection	●	●	●
Software Features			
Protocols	TCP/UDP/PPP/NITZ/PING/FILE/MQTT/NTP/HTTP/HTTPS/SSL/FTP/FTPS/CMUX/MMS	TCP/UDP/PPP/NITZ/PING/FILE/MQTT/NTP/HTTP/HTTPS/SSL/FTP/FTPS/CMUX/MMS	TCP/UDP/PPP/NITZ/PING/FILE/MQTT/NTP/HTTP/HTTPS/SSL/FTP/FTPS/CMUX/MMS
Driver	RIL Driver	Android 4.x~11.x	Android 4.x~11.x
	USB RNDIS Driver	Windows 7/8/8.1/10, Linux 2.6~5.14	Windows 7/8/8.1/10, Linux 2.6~5.14
	GNSS Driver	Android 4.x~11.x	Android 4.x~11.x
	USB ECM Driver	Linux 2.6~5.14	Linux 2.6~5.14
	USB Serial Driver	Windows 7/8/8.1/10, Linux 2.6~5.14, Android 4.x~11.x	Windows 7/8/8.1/10, Linux 2.6~5.14, Android 4.x~11.x
Electrical Features			
Supply Voltage Range	3.3~4.3 V, 3.8 V Typ.	3.3~4.3 V, 3.8 V Typ.	3.3~4.3 V, 3.8 V Typ.
Power Consumption (Typical)	12 μA @ Power off	12 μA @ Power off	
	1.7 mA @ LTE sleep (PF = 128)	1.7 mA @ LTE sleep (PF = 128)	
	1.4 mA @ LTE sleep (PF = 256)	1.4 mA @ LTE sleep (PF = 256)	TBD
	28 mA @ Idle (PF = 64, USB Connection)	28 mA @ Idle (PF = 64, USB Connection)	
	13 mA @ Idle (PF = 64, USB Disconnection)	13 mA @ Idle (PF = 64, USB Disconnection)	

NOTE:

- * : means under development/planning.
- : Supported.
- : Optional.