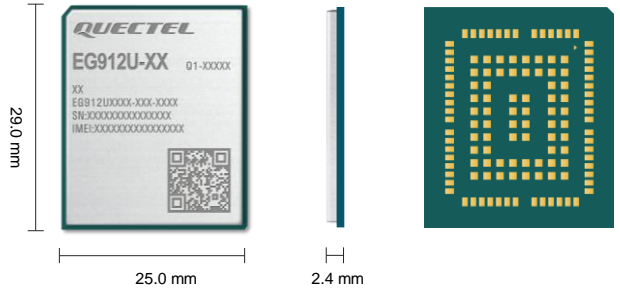


Quectel EG912U Series

IoT/ M2M-optimized LTE Cat 1bis Module



Quectel EG912U is a series of the 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, EG912U series is compatible with Quectel multi-mode BG95 series, BG96, EG91 series, EG95 series and EG915U series modules, ensuring that it can easily migrate between 2G and 4G network to meet the needs of different industry applications.

EG912U series contains two variants: EG912U-GL and EG912U-EAL which meet the frequency band coverage of different countries and regions. Through laser engraving, EG912U series features a neat appearance, wear resistant and durable label and improved heat dissipation, which makes it ideal for automation.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB drivers for Windows 10/ 11, Linux and Android) extend the implementability 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, smart safety, and industrial PDA.



Key Features

- ✓ LTE Cat 1bis module optimized for M2M and IoT applications
- ✓ Worldwide LTE and GSM/ GPRS coverage
- ✓ Abundant functional interfaces
- ✓ Analog audio
- ✓ Bluetooth (Optional)
- ✓ GNSS (Optional)
- ✓ DFOTA
- ✓ Wi-Fi Scan (Optional)

 LTE Cat 1bis Max. 10 Mbps (DL) Max. 5 Mbps (UL)	 Embedded Abundant Protocols	 LGA Package
 Multi-constellation GNSS (Optional)	 BLE (Optional)	 DFOTA
 USB 2.0 High Speed Interface	 Wi-Fi Scan (Optional)	 Quectel Enhanced AT Commands

Quectel EG912U Series

LTE Cat 1bis	EG912U-GL	EG912U-EAL
Region	Global	Europe/ APAC/ Latin America
Dimensions	29.0 mm × 25.0 mm × 2.4 mm	29.0 mm × 25.0 mm × 2.4 mm
Weight	Approx. 3.67 g	Approx. 3.5 g
Temperature Range		
Operating Temperature Range	-35 °C to +75 °C	-35 °C to +75 °C
Extended Temperature Range	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands		
LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 66	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 20/ 28/ 66
LTE-TDD	B34/ 38/ 39/ 40/ 41	B38/ 40/ 41
GSM	B2/ 3/ 5/ 8	B2/ 3/ 5/ 8
GNSS (Optional)	GPS/ GLONASS/ BDS/ Galileo/ QZSS	-
Bluetooth (Optional)	Bluetooth 4.2 (BR/ EDR + BLE)	-
Wi-Fi Scan (Optional)	2.4 GHz 802.11b (Rx)	-
Certifications		
Regulatory	Europe: CE America: FCC Canada: IC Brazil: Anatel China: SRRC/ NAL/ CCC South Korea: KC Taiwan, China: NCC Australia/ New Zealand: RCM	America: FCC
Others	WHQL	WHQL
Max. Data Rates		
LTE-FDD	10 Mbps (DL)/ 5 Mbps (UL)	10 Mbps (DL)/ 5 Mbps (UL)
LTE-TDD	8.96 Mbps (DL)/ 3.1 Mbps (UL)	8.96 Mbps (DL)/ 3.1 Mbps (UL)
GSM	85.6 kbps (DL)/ 85.6 kbps (UL)	85.6 kbps (DL)/ 85.6 kbps (UL)
Interfaces		
(U)SIM	× 2	× 2
UART	× 3	× 3
USB 2.0	× 1	× 1
Digital Audio (PCM)	× 1	× 1
Analog Audio ^①	Input: × 1 (Microphone) Output: × 1 (Earpiece)	Input: × 1 (Microphone) Output: × 1 (Earpiece)
ADC	× 2	× 2
I2C	× 1	× 1
SPI	× 1 (QuecOpen®)	× 1 (QuecOpen®)
LCM	× 1 (QuecOpen®)	× 1 (QuecOpen®)
Camera	× 1 (QuecOpen®)	× 1 (QuecOpen®)
SD Card	× 1 (QuecOpen®)	× 1 (QuecOpen®)
RESET_N	× 1	× 1
PWRKEY	× 1	× 1
Antennas	× 3 (at most), Main Antenna, GNSS Antenna (Optional), Wi-Fi Scan/ Bluetooth Antenna (Optional)	× 1, Main Antenna
Voice		
Speech Codec Modes	HR/ FR/ EFR/ AMR/ AMR-WB	HR/ FR/ EFR/ AMR/ AMR-WB
VoLTE	VoLTE (Voice over LTE)	VoLTE (Voice over LTE)
Enhanced Features		
DTMF	●	●
DFOTA	●	●
Audio Playback/ Audio Recording	●	●
QuecFile®	●	●
(U)SIM Detection	●	●
Bluetooth Low Energy	○	-
Wi-Fi Scan	○	-
Software Features		
Protocols	TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS/ SMTP/ SMTPS	TCP/ UDP/ PPP/ NTP/ NITZ/ FTP/ HTTP/ PING/ CMUX/ HTTPS/ FTPS/ SSL/ FILE/ MQTT/ MMS/ SMTP/ SMTPS
GNSS (Optional)	Android 4.x–14.x	-
RIL	Android 4.x–14.x	Android 4.x–14.x
Drivers		
USB RNDIS	Windows 10/ 11, Linux 2.6–6.7	Windows 10/ 11, Linux 2.6–6.7
USB ECM	Linux 2.6–6.7	Linux 2.6–6.7
USB Serial	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
Electrical Features		
Supply Voltage Range	3.3 V–4.3 V, typ. 3.8 V 31 µA @ Power Off 1.7 mA @ LTE Sleep (PF = 128) 1.5 mA @ LTE Sleep (PF = 256)	3.3 V–4.3 V, typ. 3.8 V 31 µA @ Power Off 1.3 mA @ LTE Sleep (PF = 128) 1.2 mA @ LTE Sleep (PF = 256)
Power Consumption (Typ.)	30 mA @ Idle (PF = 64, USB Connected) 14 mA @ Idle (PF = 64, USB Disconnected)	28 mA @ Idle (PF = 64, USB Connected) 12 mA @ Idle (PF = 64, USB Disconnected)

NOTE:

- ①: In QuecOpen® solution, the module supports an extra headphone interface.
- : Supported.
- : Optional.