Quectel EG912U-GL

IoT/ M2M-optimized LTE Cat 1 Module

29.0 mm

25.0 mm

2.4 mm
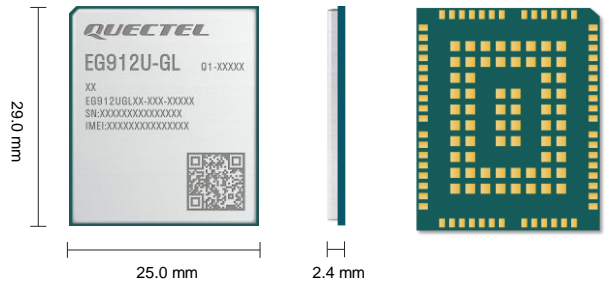
Quectel EG912U-GL is the latest LTE Cat 1 module optimized specially for M2M and IoT applications. It delivers maximum data rates up to 10 Mbps downlink and 5 Mbps uplink. Designed in the compact and unified form factor, EG912U-GL is compatible with Quectel multi-mode BG95 series, BG96, EG91 series, 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-GL covers the frequency bands of different countries and regions. Through laser engraving, EG912U-GL 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 7/ 8/ 8.1/ 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, security and protection, and industrial PDA.

Key Features

- ✔ LTE Cat 1 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 1
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

Version: 1.1 | Status: Released

LTE Cat 1	EG912U-GL
Region	Global
Dimensions	29.0 mm × 25.0 mm × 2.4 mm
Weight	Approx. 3.67 g
Temperature Range	
Operating Temperature Range	-35 °C to +75 °C
Extended Temperature Range	-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
LTE-TDD	B34/ 38/ 39/ 40/ 41
GSM	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 **Brazil:** Anatel **China:** SRRC/NAL/ CCC **Taiwan, China:** NCC **Australia/ New Zealand:** RCM
Others	WHQL
Max. Data Rates	
LTE-FDD	10 Mbps (DL)/ 5 Mbps (UL)
LTE-TDD	8.96 Mbps (DL)/ 3.1 Mbps (UL)
GSM	85.6 kbps (DL)/ 85.6 kbps (UL)
Interfaces	
(U)SIM	× 2 (Optional for (U)SIM2)
UART	× 3
USB 2.0	× 1
Digital Audio (PCM)	× 1
Analog Audio[1]	Input: × 1 (Microphone) Output: × 1 (Earpiece)
ADC	× 2
I2C	× 1
SPI	× 1
LCM	× 1 (QuecOpen®)
Camera	× 1 (QuecOpen®)
RESET_N	× 1
PWRKEY	× 1
Antennas	× 3 (at most), Main Antenna, GNSS Antenna (Optional), Wi-Fi Scan/ Bluetooth Antenna (Optional)
Voice	
Speech Codec Modes	HR/ FR/ EFR/ AMR/ AMR-WB
VoLTE	VoLTE (Voice over LTE)
Enhanced Features	
DTMF	●
DFOTA	●
Audio Playback/ Audio Recording	●
QuecLocator®	●
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
Drivers	GNSS (Optional)	Android 4.x–13.x
	RIL	Android 4.x–13.x
	USB RNDIS	Windows 7/ 8/ 8.1/ 10/ 11, Linux 2.6–5.18
	USB ECM	Linux 2.6–5.18
	USB Serial	Windows 7/ 8/ 8.1/ 10/ 11, Linux 2.6–5.18, Android 4.x–13.x
Electrical Features		
Supply Voltage Range		3.3 V–4.3 V, typ. 3.8 V
Power Consumption (Typ.)		34 μA @ Power Off 1.7 mA @ LTE Sleep (PF = 128) 1.5 mA @ LTE Sleep (PF = 256) 30 mA @ Idle (PF = 64, USB Connected) 14 mA @ Idle (PF = 64, USB Disconnected)

NOTE:

1. [1]: In QuecOpen® solution, the module supports an extra headphone interface.
2. ●: Supported.
3. ○: Optional.

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