Quectel
EG25-G Mini PCIe
IoT/M2M-optimized
LTE Cat 4 Module

Quectel EG25-G Mini PCIe is an LTE category 4 module adopting standard PCI Express® Mini Card form factor (Mini PCIe). It is optimized specially for M2M and IoT applications, and delivers maximum data rates up to 150 Mbps downlink and 50 Mbps uplink.

EG25-G Mini PCIe is backward-compatible with existing EDGE and GSM/GPRS networks, ensuring that it can be connected even in remote areas devoid of 4G or 3G coverage.

EG25-G Mini PCIe supports Qualcomm® IZat™ location technology Gen8C Lite (GPS, GLONASS, BDS, Galileo and QZSS). The integrated GNSS greatly simplifies product design, and provides quicker, more accurate and dependable positioning.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 7/8/8.1/10, Linux, Android) extend the applicability of the module to a wide range of M2M applications such as industrial router, industrial PDA, rugged tablet PC, video surveillance and digital signage, etc.

Key Features

- LTE category 4 module optimized for broadband IoT applications
- Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
- Standard PCI Express® Mini Card form factor (Mini PCIe) ideal for manufacturers to easily integrate wireless connectivity into their devices
- MIMO technology meets demands for data rate and link reliability in modem wireless communication systems
- Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
**Quectel**

**EG25-G Mini PCIe**

**IoT/M2M-optimized LTE Cat 4 Module**

**Frequency Bands**

**EG25-G Mini PCIe:**
- LTE-TDD: B38/B39/B40/B41
- GSM: B2/B3/B5/B8

**Data**

- LTE: max. 150 Mbps (DL)/Max. 50 Mbps (UL)
- LTE-TDD: max. 130 Mbps (DL)/Max. 30 Mbps (UL)
- UMTS:
  - DC-HSDDPA: max. 42 Mbps (DL) max. 27 Mbps (UL)
  - HSUPA: max. 5.76 Mbps (UL)
- WCDMA: Class 3 (24 dBm ±1/3 dB)
- LTE-FDD: Class 3 (23 dBm ±2 dB)
- LTE-TDD: Class 3 (23 dBm ±2 dB)

**Consumption:**
- 3.3 mA @Sleep, Typ.
- 35 mA @idle

**Sensitivity:**
- LTE B1: -99.5 dBm (10 MHz)
- LTE B2: -99.9 dBm (10 MHz)
- LTE B3: -99.8 dBm (10 MHz)
- LTE B4: -99.7 dBm (10 MHz)
- LTE B5: -99.9 dBm (10 MHz)
- LTE B7: -99.1 dBm (10 MHz)
- LTE B8: -99.8 dBm (10 MHz)
- LTE B12: -99.8 dBm (10 MHz)
- LTE B13: -100.1 dBm (10 MHz)
- LTE B18: -100 dBm (10 MHz)
- LTE B19: -99.8 dBm (10 MHz)
- LTE B20: -99.7 dBm (10 MHz)
- LTE B25: -100.2 dBm (10 MHz)
- LTE B26: -100 dBm (10 MHz)
- LTE B28: -99.8 dBm (10 MHz)
- LTE B38: -99.2 dBm (10 MHz)
- LTE B39: -99.8 dBm (10 MHz)
- LTE B40: -99.7 dBm (10 MHz)
- LTE B41: -99.3 dBm (10 MHz)
- WCDMA B1: -109.2 dBm
- WCDMA B2: -110 dBm
- WCDMA B4: -109.5 dBm
- WCDMA B5: -110 dBm
- WCDMA B6: -110.5 dBm
- WCDMA B8: -109.2 dBm
- WCDMA B19: -110.5 dBm
- GSM850: -108 dBm
- EGSM900: -108 dBm
- DC-1: 107.5 dBm
- DC-2: 107.5 dBm
- DC-3: 99.5 dBm (10 MHz)

**Interfaces**

- USB x 1: USB 2.0 with High Speed up to 480 Mbps
- PCM x 1: Digital Audio through PCM (Optional)
- I2C x 1
- (U)SIM x 1: 1.8/3.0 V (U)SIM Interface
- UART x 1: Main UART
- LED_WWAN# for Network Status Indication
- W_DISABLE for Disabling RF Function
- PERST# for Module Resetting
- Main,Rx-diversity and GNSS Antenna Connectors

**Enhanced Features**

- DTMF
- Audio Playback/Audio Recording
- (U)SIM Card Detection
- QuecFile
- (U)SIM Card Connector (Optional)①
- QueLocaor*
- Downlink MIMO (Supports Rx-diversity Antenna)
- DFOTA:
- Delta Firmware Upgrade Over-The-Air
- GNSS:
  - GPS/GLONASS/BD/GALILEO/QZSS (Optional)

**Electrical Characteristics**

**Output Power:**
- GSM850: Class 4 (33 dBm ±2 dB)
- EGSM900: Class 4 (33 dBm ±2 dB)
- DC-1800: Class 1 (30 dBm ±2 dB)
- DC-1900: Class 1 (30 dBm ±2 dB)
- GSM850 8-PSK: Class E2 (27 dBm ±3 dB)
- EGSM900 8-PSK: Class E2 (27 dBm ±3 dB)
- DC-1900 8-PSK: Class E2 (26 dBm ±3 dB)
- DC-1900 8-PSK: Class E2 (26 dBm ±3 dB)
- WCDMA: Class 3 (24 dBm +1/3 dB)
- LTE-FDD: Class 3 (23 dBm ±2 dB)
- LTE-TDD: Class 3 (23 dBm ±2 dB)

**Sensitivity:**
- 3.3 mA @Sleep, Typ.
- 35 mA @idle

**General Features**

- Operating Temperature Range: -35 to +75 °C
- Extended Temperature Range: -40 to +80 °C
- Dimensions: 51.0 mm x 30.0 mm x 4.9 mm
- Weight: Approx. 10.5 g

**Protocols:**
- TCP/IP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/SMT/MTT/CML/X/HTTPS/SMTP/SSL/ MMS/FILE

**Regulatory:**
- GCF (Global)
- CE (Europe)
- FCC (America)
- IC (Canada)
- Anatel (Brazil)
- IFETEL (Mexico)
- KC (South Korea)
- NCC (Taiwan, China)
- JATE/TELEC (Japan)
- RCM (Australia & New Zealand)
- ICASA (South Africa)

**Others:**
- RoHS
- WHQL

①There are two types of EG25-G Mini PCIe, with or without (U)SIM card connector.