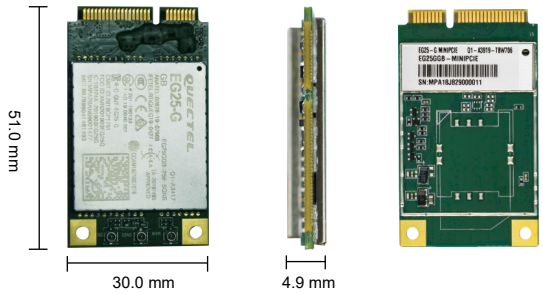
# Quectel
# EG25-G Mini PCIe

## 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, BeiDou, 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 Benefits

- 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

LTE
LTE Cat 4
Max. 150 Mbps (DL)
Max. 50 Mbps (UL)

HSPA+
Max. 42 Mbps (DL)
Max. 5.76 Mbps (UL)

Mini PCIe
Mini PCIe Package

Embedded Abundant Protocols

USB Drivers

Multi-constellation GNSS

USB 2.0 High Speed Interface

AT
Quectel Enhanced AT Commands

格迈通信机密资料
仅供诺瓦使用

Version: 1.4.0 | Status: Preliminary

# Quectel
# EG25-G Mini PCIe

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

### Frequency Bands
EG25-G Mini PCIe:
LTE-FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28
LTE-TDD: B38/B39/B40/B41
WCDMA: B1/B2/B4/B5/B6/B8/B19
GSM: B2/B3/B5/B8

### Data
LTE:
LTE-FDD: Max. 150 Mbps (DL)/Max. 50 Mbps (UL)
LTE-TDD: Max. 130 Mbps (DL)/Max. 30 Mbps (UL)
UMTS:
DC-HSDPA: Max. 42 Mbps (DL)
HSUPA: Max. 5.76 Mbps (UL)
WCDMA: Max. 384 kbps (DL)/Max. 384 kbps (UL)
GSM:
EDGE: Max. 296 kbps (DL)/Max. 236.8 kbps (UL)
GPRS: Max. 107 kbps (DL)/Max. 85.6 kbps (UL)

### Voice
Speech Codec Modes:
HR/FR/EFR/AMR/AMR-WB
Echo Arithmetic:
Echo Cancellation/Noise Suppression
Audio:
Digital Audio and VoLTE (Voice over LTE) (Optional)

### Interfaces
USB × 1: USB 2.0 with High Speed up to 480 Mbps
PCM x 1: Digital Audio through PCM (Optional)
I2C × 1
(U)SIM x 1: 1.8/3.0 V (U)SIM Interface
UART × 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
QuecLocator®
Downlink MIMO (Supports Rx-diversity Antenna)
DFOTA:
Delta Firmware Upgrade Over-The-Air
GNSS:
GPS/GLONASS/BeiDou/Galileo/QZSS(Optional)

### Electrical Characteristics
Output Power:
Class 3 (23 dBm ±2 dB) for LTE-FDD bands
Class 3 (23 dBm ±2 dB) for LTE-TDD bands
Class 3 (24 dBm +1/-3 dB) for WCDMA bands
Class E2 (27 dBm ±3 dB) for GSM850 8-PSK
Class E2 (27 dBm ±3 dB) for EGSM900 8-PSK
Class E2 (26 dBm ±3 dB) for DCS1800 8-PSK
Class E2 (26 dBm ±3 dB) for PCS1900 8-PSK
Class 4 (33 dBm ±2 dB) for GSM850
Class 4 (33 dBm ±2 dB) for EGSM900
Class 1 (30 dBm ±2 dB) for DCS1800
Class 1 (30 dBm ±2 dB) for PCS1900
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
DCS: -107.5 dBm
PCS: -107.5 dBm

### Software Features
USB Serial Driver:
Windows 7/8/8.1/10,
Linux 2.6–5.4,
Android 4.x–9.x
GNSS Driver:
Android 4.x–9.x
RIL Driver:
Android 4.x–10.x
NDIS Driver:
Windows 7/8/8.1/10
MBIM Driver:
Windows 8/8.1/10, Linux 3.18–5.4
GobiNet Driver:
Linux 2.6–5.4
QMI_WWAN Driver:
Linux 3.4–5.4
Protocols:
TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/SMTP/MQTT/CMUX/HTTPS/FTPS/SMTPS/SSL/MMS/FILE

### General Features
Operating Temperature Range: -35 °C to +75 °C
Extended Temperature Range: -40 °C to +80 °C
Dimensions: 51.0 mm x 30.0 mm x 4.9 mm
Weight: Approx. 9.8 g
Mini PCIe Package
Supply Voltage: 3.0–3.6 V, 3.3 V Typ.
3GPP E-UTRA Release 11
Bandwidth: 1.4/3/5/10/15/20 MHz
3GPP TS27.007 and Enhanced AT Commands

### Approvals
Carrier:
Deutsche Telekom (Europe)
Verizon/AT&T/U.S. Cellular/T-Mobile*/Sprint* (America)
Telus/Rogers* (Canada)
Regulatory:
GCF (Global)
CE (Europe)
PTCRB (North America)
FCC (America)
IC (Canada)
Anatel (Brazil)
IFETEL (Mexico)
SRRC/CCC/NAL (China)
KC (South Korea)
NCC (Taiwan, China)
JATE/TELEC (Japan)
RCM (Australia & New Zealand)
FAC* (Russia)
NBTC* (Thailand)
IMDA (Singapore)
ICASA (South Africa)
Others:
RoHS
WHQL

* Under Development

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

Copyright © 2020 Quectel Wireless Solutions Co., Ltd. All Rights Reserved http://www.quectel.com
HQ address: Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Tel: +86 21 51086236 Email: info@quectel.com