

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 150Mbps downlink and 50Mbps uplink data rates.

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/eCall*) 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 Cat 4
Max 150Mbps (DL)
Max 50Mbps (UL)



Max 42Mbps (DL)
Max 5.76Mbps (UL)



Mini PCIe Package



Embedded Abundant Protocols



eCall*



Multi-constellation GNSS



USB 2.0 High Speed Interface



USB Drivers

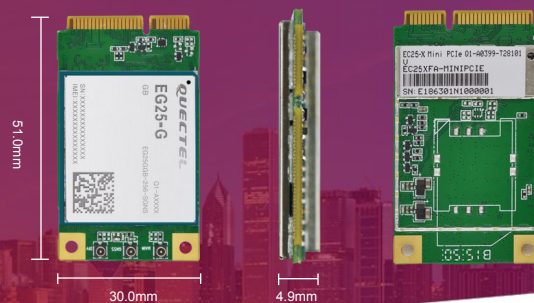


Quectel Enhanced AT Commands

Quectel

EG25-G Mini PCIe

IoT/M2M-optimized LTE Cat 4 Module



EG25-G Mini PCIe:

LTE TDD: 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 150Mbps (DL)/Max 50Mbps (UL)

LTE TDD: Max 130Mbps (DL)/Max 30Mbps (UL)

UMTS:

DC-HSDPA: Max 42Mbps (DL)

HSUPA: Max 5.76Mbps (UL)

WCDMA: Max 384Kbps (DL)/Max 384Kbps (UL)

GSM:

EDGE: Max 296Kbps (DL)/Max 236.8Kbps (UL)

GPRS: Max 107Kbps (DL)/Max 85.6Kbps (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 x 1: USB 2.0 with High Speed up to 480Mbps

PCM x 1: Digital Audio through PCM (Optional)

(U)SIM x 1: 1.8V/3.0V (U)SIM Interface

UART x 1: Main UART

LED_WWAN# for Network Status Indication

W_DISABLE# for Disabling RF Function

PERST# for Module Resetting

Solder pads for Main Antenna, Rx-diversity and

GNSS Antennas

Enhanced Features

eCall*

DTMF*

(U)SIM Card Detection

(U)SIM Card Connector

Support MIMO in DL Direction

DFOTA*:

Delta Firmware Upgrade Over-The-Air

GNSS:

GPS/GLONASS/BeiDou/Galileo/QZSS (Optional)

Electrical Characteristics

Output Power:

Class 3 (23dBm±2dB) for LTE FDD bands

Class 3 (23dBm±2dB) for LTE TDD bands

Class 3 (24dBm+1/-3dB) for WCDMA bands

Class E2 (27dBm±3dB) for GSM850 8-PSK

Class E2 (27dBm±3dB) for EGSM900 8-PSK

Class E2 (26dBm±3dB) for DCS1800 8-PSK

Class E2 (26dBm±3dB) for PCS1900 8-PSK

Class 4 (33dBm±2dB) for GSM850

Class 4 (33dBm±2dB) for EGSM900

Class 1 (30dBm±2dB) for DCS1800

Class 1 (30dBm±2dB) for PCS1900

Consumption:

3.6mA @Sleep, Typ.

35mA @Idle

Sensitivity:

LTE B1: -99.5(10M)

LTE B2: -99.9dBm (10M)

LTE B3: -99.7dBm (10M)

LTE B4: -99.7dBm (10M)

LTE B5: -99.9dBm (10M)

LTE B7: -99.2dBm (10M)

LTE B8: -99.8dBm (10M)

LTE B12: -99.8dBm (10M)

LTE B13: -99.5dBm (10M)

LTE B18: -100dBm (10M)

LTE B19: -99.9dBm (10M)

LTE B20: -99.8dBm (10M)

LTE B25: -100dBm(10M)

LTE B26: -99.5dBm (10M)

LTE B28: -99.6dBm (10M)

LTE B38: -99dBm (10M)

LTE B39: -99.5dBm(10M)

LTE B40: -99.2dBm (10M)

LTE B41: -99dBm (10M)

WCDMA B1: -109.2dBm

WCDMA B2: -110dBm

WCDMA B4: -109.7dBm

WCDMA B5: -110.4dBm

WCDMA B6: -110.5dBm

WCDMA B8: -110.5dBm

WCDMA B19: -110.1dBm

GSM850: -108dBm

GSM900: -108dBm

DCS: -107.5dBm

PCS: -107.5dBm

Software Features

USB Serial Driver:

Windows 7/8/8.1/10, Windows CE 5.0/6.0/7.0*,

Linux 2.6/3.x/4.1~4.14, Android

4.x/5.x/6.x/7.x/8.x

RIL Driver:

Android 4.x/5.x/6.x/7.x/8.x

NDIS Driver:

Windows 7/8/8.1/10

ECM Driver*:

Linux 2.6/3.x/4.1~4.14

Gobinet Driver:

Linux 2.6/3.x/4.1~4.14

QMI_WWAN Driver:

3.x (3.4 or later)/4.1~4.14

Protocols:

TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/

SMTTP/CMUX*/HTTPS*/MMS*/FTPS*/SMTPS*/

SSL*/FILE*

General Features

Temperature Range: -40°C ~ +80°C

Dimensions: 50.0mm x 30.0mm x 4.9mm

Weight: Approx. 9.8g

Mini PCIe Package

Supply Voltage: 3.0V~3.6V, 3.3V Typ.

3GPP E-UTRA Release 11

Bandwidth: 1.4/3/5/10/15/20MHz

3GPP TS27.007 and Enhanced AT Commands

Approvals

RoHS Compliant

GCF* (Global)

Verizon*/AT&T*/FCC*/PTCRB* (North America)

CE* (Europe)

RCM* (Australia)

IC* (Canada)

Anatel* (Brazil)

IFETEL* (Mexico)

CCC* (China)

NCC* (Taiwan)

KC* (South Korea)

JATE*/TELEC* (Japan)

NBTC* (Thailand)

ICASA* (South Africa)

FAC* (Russia)

* Under Development