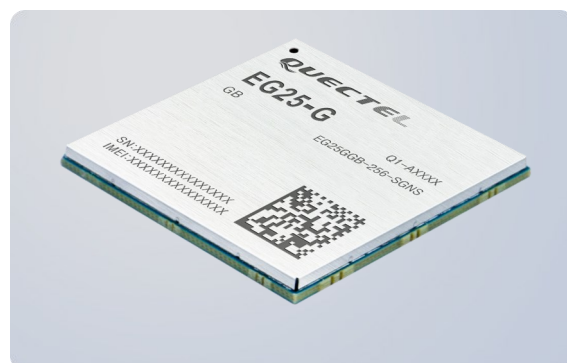


Quectel EG25-G

IoT/M2M-optimized LTE Cat 4 Module



Quectel EG25-G is an LTE Cat 4 module optimized specially for M2M and IoT applications. Adopting the 3GPP Rel. 11 LTE technology, it delivers 150Mbps downlink and 50Mbps uplink data rates. Designed in the compact and unified form factor, EG25-G is compatible with Quectel UMTS/HSPA+ UC20 module and multi-mode LTE EC2x (EC25, EC21, EC20, EC20 R2.0 and EC20 R2.1) module, which allows for flexible migration among them in design and manufacturing.

EG25-G 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 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 more 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 and IoT applications such as industrial router, industrial PDA, rugged tablet PC, video surveillance, and digital signage.



Key Benefits

- ✓ LTE Cat 4 module optimized for M2M and IoT applications
- ✓ Worldwide LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Feature refinements: supports DFOTA*, eCall* and DTMF*
- ✓ MIMO technology meets demands for data rate and link reliability in modem wireless communication systems



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



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



LGA Package



Embedded Abundant Protocols



eCall*



Multi-constellation GNSS



USB 2.0 High Speed Interface



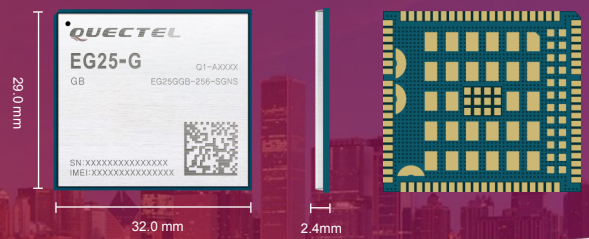
USB Drivers



Quectel Enhanced AT Commands

Quectel EG25-G

IoT/M2M-optimized LTE Cat 4 Module



Variant for Global

EG25-G

LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/
B19/B20/B25/B26/B28

LTE TDD: B38/B39/B40/B41

UMTS: 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

UART × 2 : Main UART and Debug UART

USB × 1: USB 2.0 with High Speed up to 480Mbps

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

PCM × 1: Digital Audio through PCM (Optional)

NETLIGHT × 2 (NET_STATUS and NET_MODE)

ADC × 2

SDIO × 2 (for Wi-Fi and SD card)

RESET

PWRKEY

Solder pads for Primary, Rx-diversity and GNSS

Antennas

Enhanced Features

SDIO Interface for Wi-Fi Function (Optional)

UART/PCM Interfaces for BT4.0 Function*

eCall*

DTMF*

Audio Playback*/Audio Recording*

QuecFile*

(U)SIM Card Detection

DFOTA*:

Delta Firmware Upgrade Over-The-Air

GNSS:

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

Electrical Characteristics

Output Power:

Class 4 (33dBm±2dB) for GSM850

Class 4 (33dBm±2dB) for EGSM900

Class 1 (30dBm±2dB) for DCS1800

Class 1 (30dBm±2dB) for PCS1900

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

Class 3 (23dBm±2dB) for LTE-FDD bands

Class 3 (23dBm±2dB) for LTE-TDD bands

Consumption:

20uA @Power off

3mA @Sleep, Typ.

22mA @Idle

Sensitivity:

LTE B1: -99.5dBm (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

DCS1800: -107.5dBm

PCS1900: -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

Linux qmi wwan Driver:

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

Protocols:

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

SMTP/CMUX*/HTTPS*/MMS*/FTPS*/SMTPS*/

SSL*/FILE*

General Features

Temperature Range: -40°C ~ +85°C

Dimensions: 29.0mm x 32.0mm x 2.4mm

Weight: Approx. 4.9g

LGA Package

Supply Voltage: 3.3V~4.3V, 3.8V Typ.

3GPP E-UTRA Release 11

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

3GPP TS27.007, 27.005 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