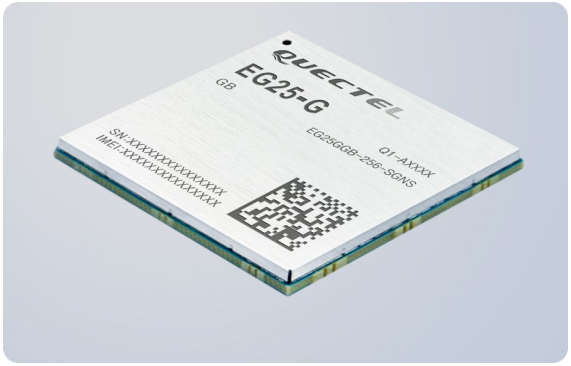
Quectel EG25-G

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

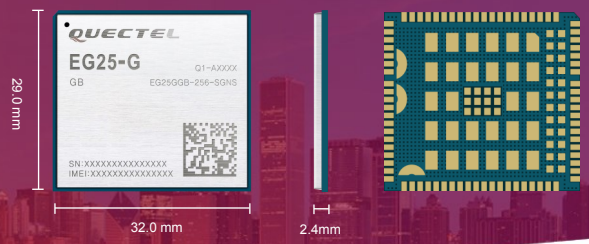
USB Drivers

Quectel Enhanced AT Commands

Rev.: V1.1 | Status: Released

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 x 1: USB 2.0 with High Speed up to 480Mbps
(U)SIM x 1: 1.8V/3.0V (U)SIM Interface
PCM x 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

Carrier:
Deutsche Telekom* (Europe)
Verizon*/AT&T*/T-Mobile*/Sprint* (North America)
Regulatory:
GCF* (Global)
CE* (Europe)
FCC*/PTCRB* (North America)
IC* (Canada)
Anatel* (Brazil)
IFETEL* (Mexico)
CCC/SRRC*/NAL* (China)
KC* (South Korea)
NCC* (Taiwan)
JATE*/TELEC* (Japan)
RCM* (Australia)
FAC* (Russia)
NBTC* (Thailand)
ICASA* (South Africa)
Others:
RoHS Compliant
WHQL

* Under Development

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