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 maximum data rates up to 150 Mbps downlink and 50 Mbps uplink. Designed in the compact and unified form factor, EG25-G is compatible with Quectel UMTS/HSPA+ UC200T series module and multi-mode LTE Standard EC2x series (EC25, EC21 and EC20 R2.1)/EG21-G modules, which allows for flexible migration among them in design and use.

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/Compass, 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) 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 and DTMF
- MIMO technology meets demands for data rate and link reliability in modern wireless communication systems

Rev.: V1.3 | Status: Released

EMAIL US: info@quectel.com
VISIT US: www.quectel.com
Quectel EG25-G
IoT/M2M-optimized
LTE Cat 4 Module

Variant for Global
EG25-G:
B19/B20/B28/B26/B2
LTE-TDD: B3/B9/B40/B61
GSM: B2/B3/B5/B8

Data
LTE:
LTE-TDD: 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 (DL)
WCDMA: Max. 384 kbps (DL)/Max. 384 kbps (UL)
GSM:
EDGE: Max. 296 kbps (DL)/Max. 236.8 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)

Interfaces
UART x 2: Main UART and Debug UART
USB x 1: USB 2.0 with High Speed up to 480 Mbps
(USB1x1: 1.8V/3.3V (USB Interface
PC
tx 1: Digital Audio through PCM (Optional)
I2C x 1
NETLINK x 2 (NET_STATUS and NET_MODE)
ADC x 2
SDIO x 2 (for Wi-Fi and SD Card)
SGMI x 1
BT x 1
RESET (Active Low)
PWRKEY (Active Low)
STATUS
USB_BOOT
Solders Pads for Primary, Rx and GNSS Antennas

Enhanced Features
SDIO Interface for Wi-Fi Function (Optional)
UART/PCM Interfaces for BT 4.0 Function* (DMP
Audio Playback/Audio Recording
QuecFile*
QuecLocator*
QuecOpen*
(Downlink MIMO (Supports Rx-diversity Antenna)
JGSM Card Detection
DFOA:
Delta Firmware Upgrade Over-The-Air
GNSS:
GPS/GLONASS/BeiDou (Compass)/Galileo/QZSS

Electrical Characteristics
Output Power:
Class 4 (33 dBm ±2 dB) for GMSB850
Class 4 (33 dBm ±2 dB) for EGSM900
Class 1 (30 dBm ±2 dB) for DCS1800
Class 1 (30 dBm ±2 dB) for PCS1900
Class E2 (27 dBm ±3 dB) for GMSB850 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 3 (24 dBm ±1/3 dB) for WCDMA bands
Class 3 (23 dBm ±2 dB) for LTE-FDD bands
Class 3 (23 dBm ±2 dB) for LTE-TDD bands

Consumption:
1.5 μA @ Power off
1.8 mA @ Sleep, Typ.
22 mA @ Idle

Sensitivity:
LTE B1: -99.5 dBm (10 MHz)
LTE B2: -99.9 dBm (10 MHz)
LTE B3: -99.7 dBm (10 MHz)
LTE B4: -99.7 dBm (10 MHz)
LTE B5: -99.9 dBm (10 MHz)
LTE B7: -99.2 dBm (10 MHz)
LTE B8: -99.8 dBm (10 MHz)
LTE B12: -99.8 dBm (10 MHz)
LTE B13: -99.5 dBm (10 MHz)
LTE B18: -100 dBm (10 MHz)
LTE B19: -99.9 dBm (10 MHz)
LTE B20: -99.8 dBm (10 MHz)
LTE B25: -100 dBm (10 MHz)
LTE B26: -99.5 dBm (10 MHz)
LTE B28: -99.6 dBm (10 MHz)
LTE B38: -99.2 dBm (10 MHz)
LTE B39: -99.5 dBm (10 MHz)
LTE B40: -99.2 dBm (10 MHz)
LTE B41: -99 dBm (10 MHz)
WCDMA B1: -109.2 dBm
WCDMA B2: -110 dBm
WCDMA B4: -109.5 dBm
WCDMA B5: -110.4 dBm
WCDMA B6: -110.5 dBm
WCDMA B8: -109.5 dBm
WCDMA B19: -110.1 dBm
EGSM950: -108 dBm
EGSM900: -108 dBm
DCS1800: -107.4 dBm

Weight: Approx. 4.9 g

Operating Temperature Range:
-35 to +75 °C

Dimensions:
29.0 mm x 20.0 mm x 2.4 mm

General Features

Protocols:
TCP/UDP/PPP/FTP/HTTP/NTP/PING/QMI/NITZ/
SMTP/MQTT/CMUX/HTTPS/FTP/SMTPS/SSL/ICMSS/FILE

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
NDS 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

** Under Development

* means EG25-G includes LGA and LCC form factors. LGA is default, while LCC is recommended only in the compatible design.