

Quectel EG95

IoT/M2M-optimized LTE Cat 4 Module



Quectel EG95 is a series of LTE category 4 module optimized specially for M2M and IoT applications. Adopting 3GPP Rel. 11 LTE technology, it delivers 150Mbps downlink and 50Mbps uplink data rates.

EG95 is pin-to-pin compatible with Quectel UMTS/HSPA+ UG95/UG96 and LTE Cat M1/Cat NB1 BG96 modules. And it is backward-compatible with existing GSM/GPRS & UMTS/HSPA networks, ensuring that it can be connected even in remote areas devoid of 4G network coverage.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (USB serial drivers for Windows 7/8/10, 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, digital signage and so on.



Key Benefits

- ✓ LTE category 4 module optimized for M2M and IoT applications
- ✓ Multi-band LTE, UMTS/HSPA+ and GSM/GPRS/EDGE coverage
- ✓ Compact SMT form factor ideal for size-constrained applications with extended operation temperature range
- ✓ Embedded power management unit (PMU) featuring ultra-low deep-sleep current consumption
- ✓ Simple migration from 2G/3G to 4G with a flexible and scalable platform



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



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



LGA Package



Embedded Abundant Protocols



eCall



Compact Size



USB 2.0 High Speed Interface



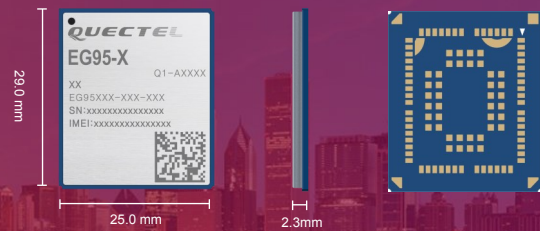
USB Drivers



Quectel Enhanced AT Commands

Quectel EG95

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Variant for Europe

EG95-E:

LTE FDD: B1/B3/B7/B8/B20/B28A

WCDMA: B1/B8

GSM: 900/1800MHz

Variant for North America

EG95-NA:

LTE FDD: B2/B4/B5/B12/B13

WCDMA: B2/B4/B5

Data

LTE:

LTE FDD: Max 150Mbps (DL)/Max 50Mbps (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

VoLTE:

Digital Audio and VoLTE (Voice over LTE)
(Optional)

Interfaces

USB 2.0 with High Speed up to 480Mbps

Digital Audio through PCM (Optional)

1.8V/3.0V (U)SIM Interface × 2

NETLIGHT × 1

UART × 2 (Main UART and Debug UART)

RESET_N

PWRKEY

SPI × 1

Main and Rx-diversity Antenna Interfaces

GNSS Antenna Interface (For EG95-NA Only)

Enhanced Features

eCall

(U)SIM Card Detection

DFOTA*:

Delta Firmware Upgrade over the Air

GNSS (For EG95-NA only):

GPS/GLONASS/BeiDou/Galileo/QZSS

Electrical Characteristics

Output Power:

Class 3 (23dBm±2dB) for LTE FDD bands

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

Class 4 (33dBm±2dB) for EGSM900

Class 1 (30dBm±2dB) for DCS1800

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

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

Consumption:

15uA @Power off

2.6mA @Sleep, Typ.

31mA @Idle, Typ.

Sensitivity:

LTE FDD B1: -101.4dBm (10M)

LTE FDD B2: -102.1dBm (10M)

LTE FDD B3: -101.5dBm (10M)

LTE FDD B4: -102.1dBm (10M)

LTE FDD B5: -103.1dBm (10M)

LTE FDD B7: -101.3dBm (10M)

LTE FDD B8: -101.2dBm (10M)

LTE FDD B12: -102.7dBm (10M)

LTE FDD B13: -102.6dBm (10M)

LTE FDD B20: -101.3dBm (10M)

LTE FDD B28A: -101.4dBm (10M)

WCDMA B1: -112.5dBm

WCDMA B2: -109.7dBm

WCDMA B4: -109.6dBm

WCDMA B5: -110.2dBm

WCDMA B8: -112.5dBm

EGSM900: -108.6dBm

DCS1800: -109.4dBm

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:

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

Protocols:

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

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

General Features

Temperature Range: -40°C ~ +85°C

Dimensions: 29.0mm x 25.0mm x 2.3mm

Weight: Approx. 3.8g

LGA Package

Rx-diversity Antenna

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

3GPP E-UTRA Release 11

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

3GPP TS 27.007, 27.005 and Quectel Enhanced

AT Commands

Approvals

RoHS Compliant

GCF (Global)

CE (Europe)

FAC (Russia)

RCM (Australia & New Zealand)

IC/Telus*/Rogers* (Canada)

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

* Under Development