

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 contains 3 variants: EG95-E, EG95-EX and EG95-NA. 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



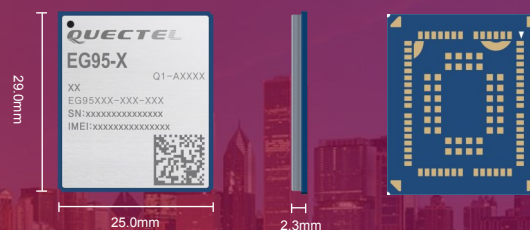
USB Drivers



Quectel Enhanced AT Commands

Quectel EG95

IoT/M2M-optimized LTE Cat 4 Module



Variants for EMEA

EG95-E:

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

WCDMA: B1/B8

GSM: 900/1800MHz

EG95-EX^①:

LTE FDD: B1/B3/B7/B8/B20/B28

WCDMA: B1/B8

GSM: B3/B8

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/-EX Only)

Enhanced Features

eCall*

(U)SIM Card Detection

DFOTA*:

Delta Firmware Upgrade over the Air

GNSS (For EG95-NA/-EX 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/9.x

RIL Driver:

Android 4.x/5.x/6.x/7.x/8.x/9.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/ NITZ/

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^②

Carrier:

Verizon/AT&T/T-Mobile (North America)

Telus/Rogers* (Canada)

Regulatory:

GCF (Global)

CE (Europe)

FCC/PTCRB (North America)

IC (Canada)

RCM (Australia & New Zealand)

FAC (Russia)

Others:

RoHS Compliant

WHQL

* Under Development.

① EG95-EX is based on ThreadX OS.

② Certification status are different among different variants of EG95 module.