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 150Mbit/s downlink and 50Mbit/s uplink data rates.

EG95 is fallback 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 drivers for Windows XP, 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

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

3G HSPA+
Max 42Mbps (DL)
Max 5.76Mbps (UL)

LGA
LGA Package

Embedded Abundant Protocols
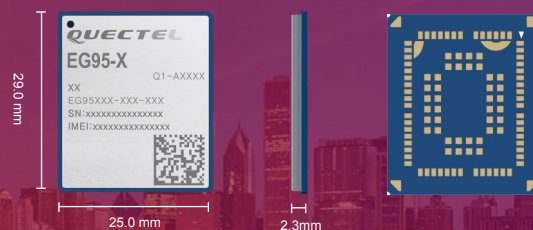
eCall

Compact Size

USB 2.0 High Speed Interface

USB Drivers

AT
Quectel Enhanced AT Commands

Quectel EG95

IoT/M2M-optimized LTE
Cat 4 Module

29.0 mm

25.0 mm

2.3mm

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 Reduction

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

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

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: TBD

LTE FDD B3: -101.5dBm (10M)

LTE FDD B4: TBD

LTE FDD B5: TBD

LTE FDD B7: -101.3dBm (10M)

LTE FDD B8: -101.2dBm (10M)

LTE FDD B12: TBD

LTE FDD B13: TBD

LTE FDD B20: -101.3dBm (10M)

LTE FDD B28A: -101.4dBm (10M)

WCDMA B1: -109.5dBm

WCDMA B2: TBD

WCDMA B4: TBD

WCDMA B5: TBD

WCDMA B8: -109.5dBm

EGSM900: -108.6dBm

DCS1800: -109.4dBm

Software Features

USB Serial Driver:

Windows XP, Windows Vista,

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

RIL Driver:

Android 4.x/5.x/6.x/7.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

3GPP E-UTRA Release 11

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

Rx-diversity Antenna

Temperature Range: -40°C ~ +85°C

Dimensions: 29.0mm x 25.0mm x 2.3mm

LGA Package

Approx. 3.8g

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

3GPP TS27.007 and Enhanced AT Commands

Approvals

RoHS Compliant

CE/GCF* (Europe)

FAC (Russia)

RCM (Australia)

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

* Under Development

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