

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 Cat M1/Cat NB1 BG96 modules. This makes it backward-compatible with existing EDGE and GSM/GPRS networks, ensuring that it can easily migrate from 2G/3G to 4G networks.

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



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

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

PWRKEY

Main and Rx-diversity Antenna Interfaces

ADC × 1

Enhanced Features

eCall

DFOTA*: Delta firmware upgrade over the air

(U)SIM Card Detection

Electrical Characteristics

Output Power:

Class 3 (23dBm±2dB) for LTE FDD

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

Class E2 (27dBm±3dB) for EDGE 900MHz

Class E2 (26dBm+3/-4dB) for EDGE 1800MHz

Class 4 (33dBm±2dB) for GSM 900MHz

Class 1 (30dBm±2dB) for GSM 1800MHz

Consumption:

15uA @Power off

2.6mA @Sleep, Typ.

21mA @Idle

Sensitivity:

LTE FDD B1: -98.5dBm (10M)

LTE FDD B3: -98.4dBm (10M)

LTE FDD B7: -97.2dBm (10M)

LTE FDD B8: -97.5dBm (10M)

LTE FDD B20: -97.3dBm (10M)

WCDMA B1: -110.5dBm (10M)

WCDMA B8: -110.4dBm (10M)

GSM: -109.4dBm

DCS: -110dBm

Software Features

USB 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, Android 4.x/5.x/6.0

RIL Driver:

Android 4.x/5.x/6.0/7.0

NDIS Driver:

Windows 7/8/8.1/10

ECM Driver:

Linux 2.6/3.x/4.1

Gobinet: Driver:

Linux 2.6/3.x/4.1

Linux qmi wwan Driver:

3.x (3.4 or later)/4.1

Protocols:

TCP/UDP/PPP/FTP/HTTP*/SMTP*/MMS/NTP/

PING/DTMF*/FILE*/CMUX/QMI

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: 25.0mm x 29.0mm x 2.3mm

LGA Package

Approx. 3.8g

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

3GPP TS27.007 and Enhanced AT Commands

* Under Development