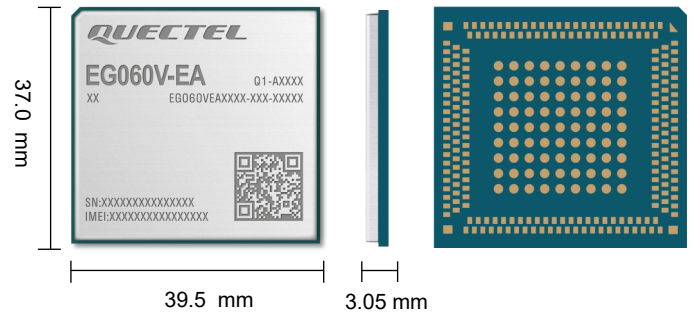




Quectel EG060V-EA

IoT/M2M-optimized LTE-A Cat 6 LGA Module



Quectel EG060V-EA is an LTE Advanced category 6 module optimized specially for M2M and IoT applications. Having adopted the 3GPP Release 10 LTE technology, it reaches a maximum data rate of up to 300 Mbps downlink and 50 Mbps uplink.

Designed in an LGA form factor, the module is compatible with Quectel Cat 6 module EG06 and Cat 12 module EG12. This compatibility facilitates migration between different categories.

The module's rich Internet protocols, multiple interfaces, and abundant functionalities (USB drivers for Windows 7, Windows 8/8.1, Windows 10, WinCE, Linux and Android) make it widely applicable in the fields of M2M and IoT. The recommended applications are routers (including MiFis), home gateways, set-top boxes, PDAs, tablet PCs, video surveillance, digital signage, etc.



Key Features

- ✓ LTE-A Cat 6 module with LGA form factor, optimized for M2M and IoT applications
- ✓ Supports LTE-A carrier aggregation
- ✓ Worldwide LTE-A and UMTS/HSPA(+) coverage
- ✓ Feature refinements: supports FOTA and DTMF
- ✓ MIMO technology meets demands of wireless communication systems on data rate and link reliability



LTE Cat 6
Max 300 Mbps (DL)
Max 50 Mbps (UL)



Max 21 Mbps (DL)
Max 5.76 Mbps (UL)



LGA Package



Abundant
Embedded
Protocols



Quectel
Enhanced
AT Commands



Voice over LTE



USB 2.0 Interface



USB Drivers

Version: 1.1 | Status: Released

Quectel EG060V-EA

IoT/M2M-optimized LTE-A Cat 6 LGA Module

For EMEA/APAC^①/Brazil

EG060V-EA

LTE-FDD: B1/B3/B5/B7/B8/B20/B28

LTE-TDD: B38/B40/B41

2 × CA^②: B1 + B1/B3/B5/B8/B20/B28;

B3 + B3/B5/B7/B8^③/B20/B28;

B7 + B5/B7/B8/B20/B28;

B38 + B38; B40 + B40; B41 + B41

WCDMA: B1/B5/B8

Data

LTE:

LTE-FDD: max. 300 Mbps (DL)/max. 50 Mbps (UL)

LTE-TDD: max. 220 Mbps (DL)/max. 30 Mbps (UL)

UMTS:

HSDPA: max. 21 Mbps (DL)

HSUPA: max. 5.76 Mbps (UL)

WCDMA: max. 384 kbps (DL)/max. 384 kbps (UL)

SMS

Point-to-point MO and MT

SMS Cell Broadcast

Text and PDU Modes

Interfaces

USB 2.0 × 1: Support Slave and Master* Modes

(U)SIM × 1: 1.8/3.0 V

GPIO* × 2

UART × 2

PCIe (RC)* × 1: PCIe Gen 1, for Wi-Fi Function

SD Card Interface* × 1

I2C × 1

PCM × 1

SPI × 1

ADC × 2

RESET_N: Reset the Module

Main and Diversity Antennas

Enhanced Features

MIMO: 2 × 2, 4 × 2, DL

eCall: Emergency Service

Digital Audio and VoLTE (Voice over LTE)

(U)SIM Card Detection

DTMF: Dual-tone Multi-frequency

FOTA: Firmware Upgrade Over-the-Air

Wi-Fi* Function through PCIe Interface

Electrical Characteristics

Output Power:

Class 3 (23 dBm ±2 dB) for LTE-FDD^④

Class 3 (23 dBm ±2 dB) for LTE-TDD

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

Power Consumption:

10 μA @ Power off

3.7 mA @ Sleep (PF = 128)

5.0 mA @ Sleep (PF = 64)

30 mA @ Idle

Software Features

USB Serial Driver:

Windows 7/8/8.1/10

WinCE 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

USB NCM Driver:

Linux 2.6–5.14

RIL Driver:

Android 4.x–10.x

USB ECM Driver:

Linux 2.6–5.9

RNDIS Driver:

Windows 7/8/8.1/10

Linux 2.6–5.9

Protocols:

PPP/TCP/UDP/FTP/FTPS/HTTP/HTTPS/NTP/PING/

SMTP*/MMS*/SMTPS*/SSL

General Features

3GPP E-UTRA Release 10 Compliance

LGA Package

Bandwidth: 1.4/3/5/10/15/20/40 (2 × CA) MHz

Supply Voltage Range: 3.3–4.3 V, typ. 3.8 V

Operation Temperature Range: -20 °C to +55 °C

Extended Temperature Range: -25 °C to +60 °C

Dimensions: 39.5 mm × 37.0 mm × 3.05 mm

Weight: approx. 6.7 g

AT Command:

3GPP TS 27.007

Quectel Enhanced AT Commands

Approvals

Regulatory:

CE (Europe)

NCC (Taiwan, China)

RCM (Australia/New Zealand)

Notes:

1. *: Under Development
2. ①: Excluding Japan and China Mobile
3. ②: 2 × CA supports continuous intra-band CA, but not non-continuous intra-band CA.
4. ③: For CA-3A-8A, “B3 (PCC) + B8 (SCC)” is supported, while “B8 (PCC) + B3 (SCC)” is not.
5. ④: For LTE-FDD Band 3, the transmitting power is 21.5 dBm ±1 dB.