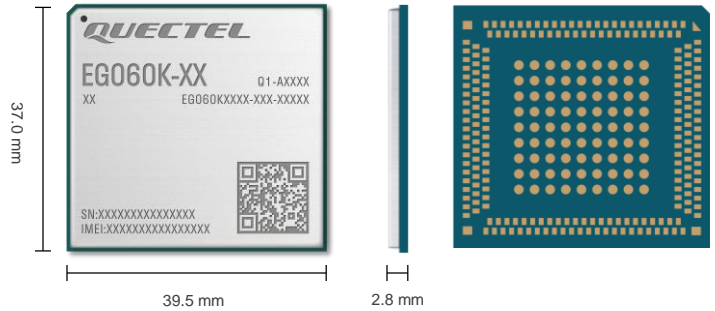




Quectel EG060K Series

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



Quectel EG060K is a series of LTE advanced Cat 6 modules optimized specially for M2M and IoT applications. Adopting the 3GPP Rel-12 LTE technology, it delivers M2M-optimized speeds of 300 Mbps downlink and 50 Mbps uplink peak data rates. It contains 4 variants: EG060K-EA, EG060K-GT, EG060K-NA and EG060K-LA .

Designed in an LGA form factor, EG060K series module is compatible with Quectel EG06/ EG12/ EG18 series module (Cat 6/ 12/ 18), which will help customers to migrate between different categories.

EG060K series module covers nearly all mainstream carriers in the world. It is embedded with a multi-constellation and high-sensitivity GNSS (GPS, GLONASS, BDS and Galileo) receiver for positioning. The integrated GNSS greatly simplifies product design, and provides quicker, more accurate and more dependable positioning capability.

A rich set of Internet protocols, industry-standard interfaces and abundant functionalities (such as USB drivers for Windows 7/ 8/ 8.1/ 10/ 11, Linux, Android) extend the applicability of the module to a wide range of M2M and IoT applications such as industrial routers, home gateways, set-top boxes, industrial PDAs, consumer laptops, rugged tablet PCs, video surveillance and digital signage, etc.



Key Features

- ✓ LTE-A Cat 6 module with an LGA form factor, optimized for M2M and IoT applications
- ✓ LTE-A carrier aggregation supported
- ✓ Worldwide LTE-A and UMTS/ HSPA+/ DC-HSDPA coverage
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ Feature refinements: supports DFOTA and DTMF
- ✓ MIMO technology meets the demands for data rate and link reliability in modem wireless communication systems



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



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



LGA Package



Embedded Abundant
Protocols



Voice over LTE



Multi-Constellation
GNSS



USB 2.0/ 3.0 Interface



Quectel Enhanced
AT Commands



USB Drivers

Version: 1.2 | Status: Released

Quectel EG060K Series

LTE Cat 6	EG060K-EA	EG060K-GT	EG060K-NA	EG060K-LA
Region/ Operator	EMEA/ APAC ^① / Brazil	Global TDD Network	North America	Latin America
Dimensions (mm)	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8	37.0 × 39.5 × 2.8
Temperature Range				
Operating Temperature	-30 °C to +75 °C	-30 °C to +75 °C	-30 °C to +75 °C	-30 °C to +75 °C
Extended Temperature	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Frequency Bands				
LTE-FDD	B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32	-	B2/ 4/ 5/ 7/ 12/ 13/ 14/ 25/ 26/ 29/ 30/ 66/ 71	B2/ 4/ 5/ 7/ 8/ 25/ 28/ 66
LTE-TDD	B38/ 40/ 41/ 42 ^② / 43 ^②	B40*/ 41/ 42*/ 43*/ 48	B41/ 48	B42 ^② / 43 ^②
WCDMA	B1/ 3/ 5/ 8	-	-	B2/ 4/ 5/ 8
GNSS	GPS/ GLONASS/ BDS/ Galileo	GPS/ GLONASS/ BDS/ Galileo	GPS/ GLONASS/ BDS/ Galileo	GPS/ GLONASS/ BDS/ Galileo
Certifications				
Regulatory	Europe: CE Australia/ New Zealand: RCM	American: FCC*/ IC*	Global: GCF* North America: PTCRB* America: FCC* Canada: IC*	TBD
Carrier	TBD	TBD	TBD	TBD
Others	WHQL	WHQL	WHQL	WHQL
Data Rate (Max.)				
LTE-FDD (Mbps)	300 (DL)/ 50 (UL)	-	300 (DL)/ 50 (UL)	300 (DL)/ 50 (UL)
LTE-TDD (Mbps)	226 (DL)/ 28 (UL)	226 (DL)/ 28 (UL)	226 (DL)/ 28 (UL)	226 (DL)/ 28 (UL)
DC-HSDPA/ HSUPA (Mbps)	42 (DL)/ 5.76 (UL)	-	-	42 (DL)/ 5.76 (UL)
WCDMA (kbps)	384 (DL)/ 384 (UL)	-	-	384 (DL)/ 384 (UL)
Interfaces				
(U)SIM (1.8/3.0 V)	× 2	× 2	× 2	× 2
eSIM (Optional)	× 1	× 1	× 1	× 1
UART	× 3 (Bluetooth UART* × 1, multiplexed from SPI)	× 3 (Bluetooth UART* × 1, multiplexed from SPI)	× 3 (Bluetooth UART* × 1, multiplexed from SPI)	× 3 (Bluetooth UART* × 1, multiplexed from SPI)
SPI	× 1 (Master mode only)	× 1 (Master mode only)	× 1 (Master mode only)	× 1 (Master mode only)
PCM	× 1	× 1	× 1	× 1
PCIe	× 1 (RC mode only: PCIe Gen 2, for Wi-Fi, Ethernet functions)	× 1 (RC mode only: PCIe Gen 2, for Wi-Fi, Ethernet functions)	× 1 (RC mode only: PCIe Gen 2, for Wi-Fi, Ethernet functions)	× 1 (RC mode only: PCIe Gen 2, for Wi-Fi, Ethernet functions)
USB 2.0/ 3.0	× 1 (Master mode* and slave mode)	× 1 (Master mode* and slave mode)	× 1 (Master mode* and slave mode)	× 1 (Master mode* and slave mode)
ADC	× 2	× 2	× 2	× 2
SDIO*	× 1	× 1	× 1	× 1
I2C	× 1	× 1	× 1	× 1
Voice				
VoLTE	Digital Audio and VoLTE (Voice over LTE)	-	Digital Audio and VoLTE (Voice over LTE)	Digital Audio and VoLTE (Voice over LTE)
Enhanced Features				
DTMF	●	-	●	●
DFOTA	●	●	●	●
QMI/Rmnet	●	●	●	●
MIMO	2 × 2, 4 × 2, 4 × 4 ^② , DL	2 × 2, 4 × 2, DL	2 × 2, 4 × 2, 4 × 4, DL	2 × 2, 4 × 2, 4 × 4 ^② , DL
(U)SIM Detection	●	●	●	●

Notes:

1. *: Under Development/ In Progress.

2. ●: Supported.

3. ①: China and Japan excluded.

4. ②: Optional.

Quectel EG060K Series

LTE Cat 6	EG060K-EA	EG060K-GT	EG060K-NA	EG060K-LA
Software Features				
Protocols	QMI/ MBIM/ NITZ/ HTTP(S)/ FTP/ LwM2M*/ PING*	QMI/ MBIM/ NITZ/ HTTP(S)/ FTP/ LwM2M*/ PING*	QMI/ MBIM/ NITZ/ HTTP(S)/ FTP/ LwM2M*/ PING*	QMI/ MBIM/ NITZ/ HTTP(S)/ FTP/ LwM2M*/ PING*
RIL Driver	Android 4.x–12.x	Android 4.x–12.x	Android 4.x–12.x	Android 4.x–12.x
USB MBIM Driver	Windows 8/ 8.1/ 10/ 11 Linux 3.18–5.18	Windows 8/ 8.1/ 10/ 11 Linux 3.18–5.18	Windows 8/ 8.1/ 10/ 11 Linux 3.18–5.18	Windows 8/ 8.1/ 10/ 11 Linux 3.18–5.18
USB NDIS Driver	Windows 7/ 8/ 8.1/ 10/ 11	Windows 7/ 8/ 8.1/ 10/ 11	Windows 7/ 8/ 8.1/ 10/ 11	Windows 7/ 8/ 8.1/ 10/ 11
USB ECM Driver	Linux 2.6–5.18	Linux 2.6–5.18	Linux 2.6–5.18	Linux 2.6–5.18
Drivers				
USB GobiNet Driver	Linux 2.6–5.18	Linux 2.6–5.18	Linux 2.6–5.18	Linux 2.6–5.18
USB QMI_WWAN Driver	Linux 3.4–5.18	Linux 3.4–5.18	Linux 3.4–5.18	Linux 3.4–5.18
USB Serial Driver	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–5.18 Android 4.x–12.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–5.18 Android 4.x–12.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–5.18 Android 4.x–12.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–5.18 Android 4.x–12.x
Electrical Features				
Supply Voltage Range	3.3–4.4 V, typ. 3.8 V	3.3–4.4 V, typ. 3.8 V	3.3–4.4 V, typ. 3.8 V	3.3–4.4 V, typ. 3.8 V
Power Consumption (Typical)	12 µA @ Power off 3.7 mA @ Sleep (LTE-FDD PF = 64) 2.8 mA @ Sleep (LTE-FDD PF = 128) 11.6 mA @ Idle (LTE-FDD PF = 64)	TBD	12 µA @ Power off 3.7 mA @ Sleep (LTE-FDD PF = 64) 2.8 mA @ Sleep (LTE-FDD PF = 128) 11.6 mA @ Idle (LTE-FDD PF = 64)	12 µA @ Power off 3.7 mA @ Sleep (LTE-FDD PF = 64) 2.8 mA @ Sleep (LTE-FDD PF = 128) 11.6 mA @ Idle (LTE-FDD PF = 64)

Notes:

1. *: Under development/ in progress.
2. TBD: To Be Determined.