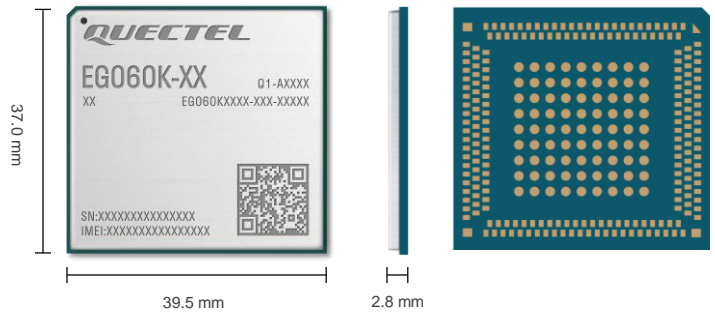




Quectel EG060K Series

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 5 variants: EG060K-EA, EG060K-GT, EG060K-NA, EG060K-LA and EG060K-JP.

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 laptops, consumer laptops, industrial PDAs, rugged tablet PCs, video transmission 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



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
(Optional)



Multi-Constellation
GNSS (Optional)



USB 2.0/ 3.0 Interface



Quectel Enhanced
AT Commands



USB Drivers

Version: 1.4 | Status: Released

Quectel EG060K Series

LTE Cat 6	EG060K-EA	EG060K-GT	EG060K-NA	EG060K-LA	EG060K-JP
Region/ Operator	EMEA/ APAC ^① / Brazil	Global TDD Network	North America	Latin America ^②	Japan
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	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	-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	-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	B1/ 3/ 5/ 8/ 18/ 19/ 26/ 28 ^③
LTE-TDD	B38/ 40/ 41/ 42 ^④ / 43 ^④	B40*/ 41/ 42*/ 43*/ 48	B41/ 48	B42/ 43	B41
LTE DL 4 × 4 MIMO	B1/ 3/ 7/ 38/ 40/ 41/ 42 ^④	-	B2/ 4/ 7/ 25/ 30/ 41/ 48/ 66	B2/ 4/ 7/ 25/ 42/ 66	-
WCDMA	B1/ 3/ 5/ 8	-	-	B2/ 4/ 5/ 8	B1/ 3/ 5/ 6/ 8/ 9/ 19
GNSS (Optional)	GPS/ GLONASS/ BDS/ Galileo	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	TBD
Carrier	TBD	TBD	American: Verizon/ AT&T/ T-Mobile	TBD	TBD
Others	WHQL	WHQL	WHQL	WHQL	WHQL
Data Rate (Max.)					
LTE-FDD (Mbps)	300 (DL)/ 50 (UL)	-	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)	226 (DL)/ 28 (UL)
DC-HSDPA/ HSUPA (Mbps)	42 (DL)/ 5.76 (UL)	-	-	42 (DL)/ 5.76 (UL)	42 (DL)/ 5.76 (UL)
WCDMA (kbps)	384 (DL)/ 384 (UL)	-	-	384 (DL)/ 384 (UL)	384 (DL)/ 384 (UL)
Interfaces					
(U)SIM (1.8/3.0 V)	× 2	× 2	× 2	× 2	× 2
eSIM (Optional)	× 1	× 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)	× 3 (Bluetooth UART* × 1, multiplexed from SPI)
SPI	× 1 (Master mode only)	× 1 (Master mode only)	× 1 (Master mode only)	× 1 (Master mode only)	× 1 (Master mode only)
PCM	× 1	× 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)	× 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)	× 1 (Master mode* and slave mode)
ADC	× 2	× 2	× 2	× 2	× 2
SDIO*	× 1	× 1	× 1	× 1	× 1
I2C	× 1	× 1	× 1	× 1	× 1

Notes:

- ①: Excl. China/ Japan.
- ②: Excl. Brazil.
- ③: UL: 715–748 MHz; DL: 770–803 MHz.
- ④: Optional.
- * : Under Development/ In Progress.
- TBD: To Be Determined.

Quectel EG060K Series

LTE Cat 6	EG060K-EA	EG060K-GT	EG060K-NA	EG060K-LA	EG060K-JP	
Voice						
VoLTE (Optional)	Digital Audio and VoLTE (Voice over LTE)	-	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 ^④ , DL	2 × 2, 4 × 2, DL	2 × 2, 4 × 2, 4 × 4, DL	2 × 2, 4 × 2, 4 × 4 ^④ , DL	2 × 2, 4 × 2, DL	
(U)SIM Detection	●	●	●	●	●	
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	QMI/ MBIM/ NITZ/ HTTP(S)/ FTP/ LwM2M/ PING	
Drivers	RIL Driver	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	Android 4.x–13.x	
	USB MBIM Driver	Windows 8/ 8.1/ 10/ 11 Linux 3.18–6.5	Windows 8/ 8.1/ 10/ 11 Linux 3.18–6.5	Windows 8/ 8.1/ 10/ 11 Linux 3.18–6.5	Windows 8/ 8.1/ 10/ 11 Linux 3.18–6.5	Windows 8/ 8.1/ 10/ 11 Linux 3.18–6.5
	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	Windows 7/ 8/ 8.1/ 10/ 11
	USB ECM Driver	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5
	USB GobiNet Driver	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5	Linux 2.6–6.5
	USB QMI_ WWAN Driver	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5	Linux 3.4–6.5
	USB Serial Driver	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–6.5 Android 4.x–13.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–6.5 Android 4.x–13.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–6.5 Android 4.x–13.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–6.5 Android 4.x–13.x	Windows 7/ 8/ 8.1/ 10/ 11 WinCE 5.0/ 6.0/ 7.0* Linux 2.6–6.5 Android 4.x–13.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	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)	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:

- : Supported.
- ④: Optional.
- * : Under development/ in progress.
- TBD: To Be Determined.