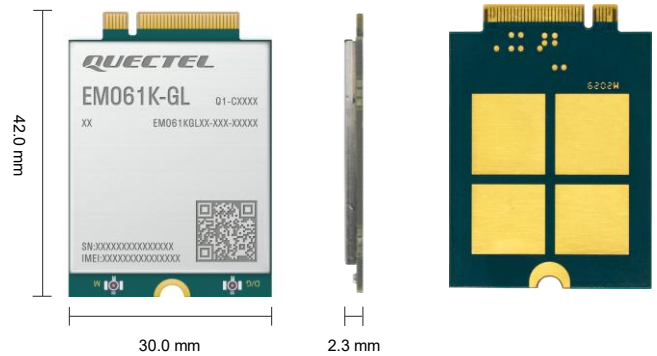




Quectel EM061K-GL

LTE-A Cat 6 M.2 Module



Quectel EM061K-GL is an LTE Advanced Category 6 module. Adopting the 3GPP Release 12 technology, the module supports a theoretical peak data rate of 300 Mbps in the downlink and a theoretical peak data rate of 50 Mbps in the uplink. Designed in M.2 form factor, the module is compatible with Quectel LTE-A Cat 6 module EM06 Series, Cat 12 modules EM12-G/ EM120K-GL/ EM121R-GL/ EM120R-GL, Cat 16 module EM160R-GL, and 5G modules RM500Q/ RM502Q Series, which facilitates customers' migration between different modules.

EM061K-GL is designed for the global market and nearly covers all the mainstream carriers worldwide. 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 (USB drivers for Windows, Linux, Android, and built-in eSIM) extend the applicability of the module to a wide range of applications such as industrial routers, home gateways, set-top boxes, industrial laptops, consumer laptops, industrial PDAs, rugged tablet PCs, and digital signage, etc.



Key Features

- ✓ LTE-A Cat 6 module with M.2 form factor
- ✓ Support DL 2 Carrier Aggregation and 64QAM
- ✓ Worldwide LTE-A and UMTS/ HSPA+ coverage
- ✓ Built-in eSIM, DSSA
- ✓ Low power mode
- ✓ Multi-constellation GNSS receiver available for applications requiring fast and accurate fixes in any environment
- ✓ MIMO technology meets demands for data rate and link reliability in modem wireless communication systems



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



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



M.2 Form Factor



Embedded Abundant
Protocols



USB 2.0 Interface



Multi-constellation GNSS
(Optional)



Quectel Enhanced
AT Commands

Quectel EM061K-GL

LTE Cat 6		EM061K-GL
Region/ Operator		Global
Package		M.2 Package, Key-B
Dimensions (mm)		42.0 × 30.0 × 2.3
Weight (g)		6.2
Temperature Range		
Operation Temperature		-25 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
LTE	LTE-FDD	B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29 ^① / 30/ 32 ^① / 66/ 71
	LTE-TDD	B34/ 38/ 39/ 40/ 41
	DL 2CA	Intra-band and Inter-band
	DL 64QAM/ UL 16QAM	●
UMTS	WCDMA	B1/ 2/ 3/ 4/ 5/ 6/ 8/ 19
GNSS (Optional)		GPS/ GLONASS/ BDS/ Galileo/ QZSS
Certifications		
Regulatory/ Conformance		Global: GCF
		Europe: CE
		North America: PTCRB
		America: FCC
		The UK: UKCA
		Canada: IC
		Brazil: Anatel
		China: SRRC/ NAL/ CCC
		South Korea: KC
		Taiwan, China: NCC
		Japan: JATE/ TELEC
		Australia/ New Zealand: RCM
		Thailand: NBTC
		Singapore: IMDA
		South Africa: ICASA
Carrier		Europe: Vodafone/ Swisscom/ EE/ Deutsche Telekom/ Telefónica
		America: Verizon/ AT&T/ T-Mobile
		China: China Unicom
		Japan: NTT DOCOMO/ Softbank ^② / KDDI
Others		WHQL/ RoHS Compliant
Data Rate (Max.)		
LTE		300 Mbps (DL); 50 Mbps (UL)
UMTS	DC-HSDPA	42 Mbps (DL)
	HSUPA	5.76 Mbps (UL)
	WCDMA	384 kbps (DL); 384 kbps (UL)
Interfaces		
(U)SIM Interfaces (1.8/ 3.0 V)		× 2
USB 2.0		× 1
Control and Indication Interfaces*		× 6 (Airplane mode control, GNSS control, wake-up control, RF status indication, etc.)
Antenna Tuner Control Interfaces*		× 4
Configuration Pins		× 4
Antenna Interfaces		× 2 (Main, Rx-diversity/ GNSS)
Enhanced Features		
MIMO: DL 2 × 2		●
Built-in eSIM		●
DSSA: Dual SIM, Single Active		●
Embedded GNSS		○
Electrical Features		
Supply Voltage Range		3.135–4.4 V, typ. 3.7 V
Power Consumption (USB Mode)		Power off: 0.07 mA; Sleep: 3.55 mA; Idle: 20.9 mA

Note:

1. ^①: LTE-FDD B29/ 32 support Rx only and are only for secondary component carrier.

2. ^②: For PC products only.

3. *: Under development/ planning/ in progress.

4. ●: Supported.

5. ○: Optional.

