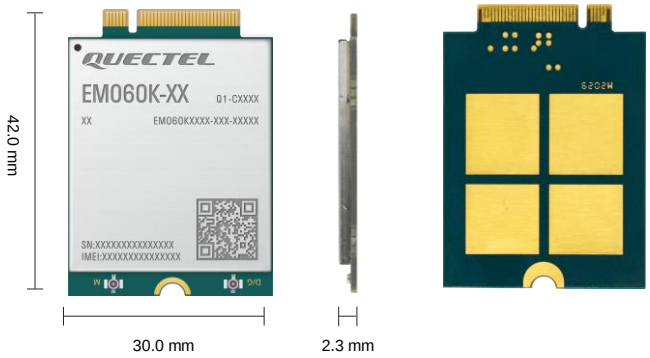
Quectel EM060K-EA

LTE-A Cat 6 M.2 Module



Quectel EM060K is a series of 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. EM060K series contains 2 variants: EM060K-GL and EM060K-NA.

EM060K series is designed for the global market and nearly covers all the mainstream carriers worldwide. The module 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/ optional 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 (optional), DSSS (Dual SIM Single Standby)
- 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

4G LTE
Max. 300 Mbps (DL)
Max. 50 Mbps (UL)

3G HSPA+
Max. 42 Mbps (DL)
Max. 5.76 Mbps (UL)

M.2
M.2 Form Factor

Embedded Abundant Protocols

PCIe
PCIe Gen2 Interface

Multi-constellation GNSS

USB 2.0/ 3.0 Interface

AT
Quectel Enhanced AT Commands

Version: 1.2 | Status: Released

Quectel EM060K-EA

LTE Cat 6		EM060K-EA
Region/Operator		EMEA/ APAC①/ Brazil
Package		M.2 Package, Key-B
Dimensions (mm)		30.0 × 42.0 × 2.3
Weight (g)		6.2
Temperature Range		
Operating Temperature		-25 °C to +75 °C
Extended Temperature		-40 °C to +85 °C
Frequency Bands		
LTE	**LTE-FDD**	B1/ 3/ 5/ 7/ 8/ 20/ 28/ 32/ 71(O)
	LTE-TDD	38/ 40/ 41/ 42(O)/ 43(O)
	DL 2CA	Intra-band and Inter-band
	DL 64QAM/ UL 16QAM	●
UMTS	**WCDMA**	B1/ 3/ 5/ 8
GNSS		GPS/ GLONASS/ BDS/ Galileo
Data Rate (Max.)		
LTE (Mbps)		300 (DL) / 50 (UL)
UMTS	**DC-HSDPA (Mbps)**	42 (DL)
	HSUPA (Mbps)	5.76 (UL)
	WCDMA (kbps)	384 (DL); 384 (UL)
Interfaces		
(U)SIM (1.8/3.0 V)		× 2
USB 2.0/3.0		× 1
PCIe (Optional)		× 1 (RC mode*: PCIe Gen 2, for Wi-Fi, ethernet functions)
PCM*		× 1
SPI (Optional)		× 1
Control and Indication Interfaces*		× 6 (Airplane mode control, GNSS control, wake-up control, RF status indication, etc.)
Cellular/ WLAN COEX Interface*		× 1
Antenna Tuner Control Interfaces*		× 2
Configuration Pins		× 4
Antenna Interfaces		× 3 (Main, Rx-diversity, GNSS)

Note:
1. ①: Excl. China/Japan.

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