

# Quectel EM060K-GL

IoT/M2M-optimized

LTE-A Cat 6 M.2 Module



## EM060K-GL-AA

## Release Notes

### LTE-A Module Series

Rev. EM060K-GL-AA\_Firmware\_Release\_Notes\_V0109\_01.001.01.001

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## 1. Release Content

This document provides the Release Notes for EM060K-GL-AA. The current release includes the firmware package.

Package	Version
Firmware	EM060KGLAAR01A09M2G_01.001.01.001

## 2. Matters Needing Attention

SN	Item
[1]	This project supports data only.

### 3. Release History

#### 3.1. Firmware Release History

Firmware Release	Description
EM060KGLAAR01A09M2G_01.001.01.001	Mass production
EM060KGLAAR01A08M2G_01.001.01.001	Mass production
EM060KGLAAR01A07M2G_01.001.01.001	Mass production
EM060KGLAAR01A06M2G_01.001.01.001	Only for sample
EM060KGLAAR01A05M2G_01.001.01.001	Only for sample
EM060KGLAAR01A04M2G_01.001.01.001	Only for sample
EM060KGLAAR01A03M2G_01.001.01.001	Only for sample
EM060KGLAAR01A02M2G_01.001.01.001	Only for sample
EM060KGLAAR01A01M2G_01.001.01.001	Only for sample

#### 3.2. New Features

EM060KGLAAR01A09M2G_01.001.01.001	
Item	Brief Description
/	/
EM060KGLAAR01A08M2G_01.001.01.001	
Item	Brief Description
/	/
EM060KGLAAR01A07M2G_01.001.01.001	
Item	Brief Description
<b>GENERAL</b>	Added <b>AT+QFOTAPID</b> to configure the profile ID for data call during DFOTA

upgrade.

**EM060KGLAAR01A06M2G\_01.001.01.001**

Item	Brief Description
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**EM060KGLAAR01A05M2G\_01.001.01.001**

Item	Brief Description
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<b>MBIM</b>	Added <b>AT+QMBIM="msfwid"</b> to configure firmware ID of the device.
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<b>GENERAL</b>	Added <b>AT+QTHERMAL</b> to configure parameters related to PA thermal mitigation.
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<b>GENERAL</b>	Added <b>AT+QSINR</b> , <b>AT+QSRP</b> and <b>AT+QSRQ</b> to report SINR, RSRP and RSRQ respectively.
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**EM060KGLAAR01A04M2G\_01.001.01.001**

Item	Brief Description
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<b>MBIM</b>	Enabled MBIM MSSAR.
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<b>Windows Update</b>	Supported Windows Update.
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**EM060KGLAAR01A03M2G\_01.001.01.001**

Item	Brief Description
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**EM060KGLAAR01A02M2G\_01.001.01.001**

Item	Brief Description
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/	/
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**EM060KGLAAR01A01M2G\_01.001.01.001**

Item	Brief Description
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/	/
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### 3.3. Improved Features

EM060KGLAAR01A09M2G_01.001.01.001	
Item	Brief Description
GENERAL	Further improved the stability of the module during the stress test of power-on/off.
EM060KGLAAR01A08M2G_01.001.01.001	
Item	Brief Description
LOW POWER	Solved the problem that the module could not enter low power mode again when DPR was pulled up after the module entered low power mode.
GENERAL	Solved the problem that the module rebooted abnormally caused by sending error information to GERAN through NAS function.
GENERAL	Solved the problem that the module rebooted with a low probability in the stress test of power-on/off.
EM060KGLAAR01A07M2G_01.001.01.001	
Item	Brief Description
FOTA	Solved the problem that an error 801 was reported probabilistically during HTTPS DFOTA upgrade.
NETWORK	Reduced the WCDMA RSSI reported from QMI to MBIM by 12 dBm to solve the problem of no network signal under Windows system.
EM060KGLAAR01A06M2G_01.001.01.001	
Item	Brief Description
USB	Extended AT+QCFG="usbnet" to support RNDIS.
GENERAL	Solved the problem that the module could not work properly in the stress test of module power-on/power-off.
EM060KGLAAR01A05M2G_01.001.01.001	
Item	Brief Description
SMS	Solved the problem that the modem could not work properly when the module received a lot of messages but did not read it.
LwM2M	Solved the problem that the module did not work properly during the LwM2M test.
MBIM	Solved the problem that cellular function keeps on/off when stay in no service for 30 mins then move to service area.
MBIM	Solved the problem of MBIM disconnection for module report OS APN list with no internet type
GENERAL	Updated FID of MBIM to 713D0492-FF55-45EC-8CB9-F8EAA4404557.

<b>GENERAL</b>	Extended <b>AT+QNWCFG="up/down"</b> to add <b>&lt;time_interval&gt;</b> to control the time interval for automatically querying the uplink and downlink throughput rates.
<b>GENERAL</b>	Added Gigsy MBN to solve the problem that the module was easy to register on 3Gfirst when switching to Gigsy eSIM.
<b>GENERAL</b>	Solved the problem of MBIM YB in low probability after the module was powered on and connected to the network because the file system is read-only.

**EM060KGLAAR01A04M2G\_01.001.01.001**

<b>Item</b>	<b>Brief Description</b>
<b>MBIM</b>	Modified the first profile APN type as NONE to solve the problem that MBIM service did not send MBIM connect message to the module within about 3 minutes on Windows 11.
<b>MBIM</b>	Solved the problem that the firmware version in the Cellular Interface on Windows 11 was shown as empty.
<b>GENERAL</b>	Optimized B40 DRX performance, power performance in high temperature and WCDMA ILPC.
<b>GENERAL</b>	Solved the problem of low probability of MBIM YB after the module was powered on and connected to the network due to the file system being read-only.
<b>GENERAL</b>	Solved the problem that no output power after executing <b>AT+QRFTEST</b> to transmit high/low power under LTE band of B42, B43 and B48.
<b>GENERAL</b>	Solved the problem that the rapid flashing of LED in low power mode had great impact on the power consumption.
<b>GENERAL</b>	Solved the probabilistic problem that the AT port of the module could not work properly during the stress test of module power-on/off.
<b>NETWORK</b>	Solved the problem that the number of parameters of inter-frequency neighbors cells returned by <b>AT+QENG="neighbourcell"</b> was incorrect.

**EM060KGLAAR01A03M2G\_01.001.01.001**

<b>Item</b>	<b>Brief Description</b>
<b>MBIM</b>	Solved the problem that the module would be frequently awakened by signal changes when it was sleeping.
<b>GENERAL</b>	Optimized the module bootup time to shorten the time from module bootup to URC RDY report to about 18 s.
<b>USB</b>	Solved the problem that the remote wake-up function was not enabled in MBIM only and MBIM + GPS modes.
<b>USB</b>	Shortened the USB enumeration time in MBIM only and MBIM+GPS modes to solve the problem of unlocking PIN.

**EM060KGLAAR01A02M2G\_01.001.01.001**

<b>Item</b>	<b>Brief Description</b>
<b>SMS</b>	Solved the problem that the error code 305 would be reported when the special character "~" was contained in the message sent by the module.



EM060KGLAAR01A01M2G\_01.001.01.001

Item	Brief Description
/	/

### 3.4. Known Issues

Item	Bug Description
/	/

#### NOTE

Verification Environment is shown below. For more details, please contact Quectel technical support.  
 For Windows,  
 Quectel\_Windows\_USB\_Driver(Q)\_MBIM\_V1.3.4  
 Qflash Tool: QFlash\_V5.9

## 4. Functions List

Category	Item	Supported Version (Since)	Note
Basic Function	SMS	EM060KGLAAR01A01M2G_01.001.01.001	/
	QMI	EM060KGLAAR01A01M2G_01.001.01.001	/
Protocol Function	NITZ	EM060KGLAAR01A01M2G_01.001.01.001	/
	PING	EM060KGLAAR01A01M2G_01.001.01.001	/
	LwM2M	EM060KGLAAR01A01M2G_01.001.01.001	/
	DSSS	EM060KGLAAR01A01M2G_01.001.01.001	/
Special Function	FOTA	EM060KGLAAR01A01M2G_01.001.01.001	/
	SIM Detection	EM060KGLAAR01A01M2G_01.001.01.001	/
	Low Power	EM060KGLAAR01A01M2G_01.001.01.001	/
	RMNET	EM060KGLAAR01A01M2G_01.001.01.001	/
	MBIM	EM060KGLAAR01A01M2G_01.001.01.001	/
	Windows Update	EM060KGLAAR01A04M2G_01.001.01.001	/

## About Quectel

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