

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_V0108_01.001.01.001

Date: 2022-10-26

Our aim is to provide customers with timely and comprehensive service. For any assistance, please contact our company headquarters:

Quectel Wireless Solutions Co., Ltd.

Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China

Tel: +86 21 5108 6236

Email: info@quectel.com

Or our local office. For more information, please visit:

<http://www.quectel.com/support/sales.htm>.

For technical support, or to report documentation errors, please visit:

<http://www.quectel.com/support/technical.htm>

Or email to support@quectel.com.

Disclaimer

While Quectel has made efforts to assure the accuracy of this document, unless otherwise provided by valid agreement, Quectel assumes no liability resulting from any inaccuracies or omissions in this document, or from use of the information obtained herein. Quectel reserves the right to make changes to any contents described herein and reserves the right to revise this document and to make changes from time to time in content hereof with no obligation to notify any person of revisions or changes. Before using any updated software, please read this statement carefully. By accessing or using the said software you irrevocably and unconditionally accept and confirm that you agree to be bound by this statement. In the event you disagree with any provision hereof and would not like to be bound by this statement you shall cease use of the said software immediately.

Duty of Confidentiality

The Receiving Party shall keep confidential all documentation and information provided by Quectel, except when the specific permission has been granted by Quectel. The Receiving Party shall not access or use Quectel's documentation and information for any purpose except as expressly provided herein. Furthermore, the Receiving Party shall not disclose any of the Quectel's documentation and information to any third party without the prior written consent by Quectel. For any noncompliance to the above requirements, unauthorized use, or other illegal or malicious use of the documentation and information, Quectel will reserve the right to take legal action.

Copyright

The information contained here is proprietary technical information of Quectel Wireless Solutions Co., Ltd. Transmitting, reproducing, disseminating and editing this document as well as using the content without permission are forbidden. Offenders will be held liable for payment of damages. All rights are reserved in the event of a patent grant or registration of a utility model or design.

Copyright © Quectel Wireless Solutions Co., Ltd. 2022. All rights reserved.

Contents

Contents	2
1. Release Content	3
2. Matters Needing Attention	3
3. Release History	4
3.1. Firmware Release History	4
3.2. New Features	4
3.3. Improved Features	5
3.4. Known Issues	7
4. Functions List.....	9

Quectel
Confidential

1. Release Content

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

Package	Version
Firmware	EM060KGLAAR01A08M2G_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
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

EM060KGLAAR01A08M2G_01.001.01.001	
Item	Brief Description
/	/
EM060KGLAAR01A07M2G_01.001.01.001	
Item	Brief Description
GENERAL	Added AT+QFOTAPID to configure the profile ID for data call during DFOTA upgrade.
EM060KGLAAR01A06M2G_01.001.01.001	
Item	Brief Description
/	/

EM060KGLAAR01A05M2G_01.001.01.001

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

EM060KGLAAR01A04M2G_01.001.01.001

Item	Brief Description
MBIM	Enabled MBIM MSSAR.
Windows Update	Supported Windows Update.

EM060KGLAAR01A03M2G_01.001.01.001

Item	Brief Description
/	/

EM060KGLAAR01A02M2G_01.001.01.001

Item	Brief Description
/	/

EM060KGLAAR01A01M2G_01.001.01.001

Item	Brief Description
/	/

3.3. Improved Features

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.
GENERAL	Extended AT+QNWCFG="up/down" to add <time_interval> to control the time interval for automatically querying the uplink and downlink throughput rates.
GENERAL	Added Gigsby MBN to solve the problem that the module was easy to register on 3Gfirst when switching to Gigsby eSIM.
GENERAL	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	
Item	Brief Description
MBIM	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.
MBIM	Solved the problem that the firmware version in the Cellular Interface on Windows 11 was shown as empty.

GENERAL	Optimized B40 DRX performance, power performance in high temperature and WCDMA ILPC.
GENERAL	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.
GENERAL	Solved the problem that no output power after executing AT+QRFTEST to transmit high/low power under LTE band of B42, B43 and B48.
GENERAL	Solved the problem that the rapid flashing of LED in low power mode had great impact on the power consumption.
GENERAL	Solved the probabilistic problem that the AT port of the module could not work properly during the stress test of module power-on/off.
NETWORK	Solved the problem that the number of parameters of inter-frequency neighbors cells returned by AT+QENG="neighbourcell" was incorrect.

EM060KGLAAR01A03M2G_01.001.01.001

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

EM060KGLAAR01A02M2G_01.001.01.001

Item	Brief Description
SMS	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_EM060K_Acer_2.0.0.3

Qflash Tool: QFlash_V5.9

Quectel
Confidential

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

Quectel Wireless Solutions is the leading global supplier of cellular and GNSS modules, with a broad product portfolio covering the most recent wireless technologies of 5G, LTE/LTE-A, NB-IoT/LTE-M, UMTS/HSPA(+), GSM/GPRS and GNSS. As a professional IoT (Internet of Things) technology developer and cellular module supplier, Quectel is able to provide one-stop services for IoT cellular modules. Quectel products have been widely applied in IoT/M2M fields including smart payment, telematics and transport, smart energy, smart cities, security, wireless gateways, industry, healthcare, agriculture, and environment monitoring.

