

# Quectel RM521F-GL

IoT/eMBB-Optimized

5G Sub-6 GHz M.2 Module



## RM521F-GL-EA

## Release Notes

### 5G Module Series

Rev. RG521F-GL-EA\_Firmware\_Release\_Notes\_V0502\_01.200.01.200

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## 1. Release Content

This document provides the Release Notes for RM521F-GL-EA. The current release includes the firmware package.

| Package  | Version                           |
|----------|-----------------------------------|
| Firmware | RM521FGLEAR05A02M4G_01.200.01.200 |

## 2. Matters Needing Attention

| SN  | Item  |
|-----|---|
| [1] | The new firmware version cannot be downgraded to versions released before RM521FGLEAR05A01M4G_01.200.01.200, otherwise the module will not be able to work normally.  |
| [2] | To extend the service life of flash, it is recommended that the total number of operations related to powering on/off the module, CFUN switching, SIM card hot swapping, dual-SIM switching, or repeated execution of NVM commands should not exceed 30 times per day.  |
| [3] | It is not recommended to directly modify the pre-set APN profiles. Please create an APN profile after the existed CID number. Suppose you modify the APN profile of IMS, SOS, etc. with added specific attributes, these attributes are hidden after modification, causing the profile to still be unavailable. |
| [4] | During the FOTA upgrade process, it is necessary to ensure the stable power supply of the module. If the power is disconnected during the upgrade, there is a small probability that the flash will be damaged.   |
| [5] | M.2 module is encapsulated without SPI, and SLIC cannot be mounted on the module.   |

### 3. Release History

#### 3.1. Firmware Release History

| Firmware Release                  | Description     |
|-----------------------------------|-----------------|
| RM521FGLEAR05A02M4G_01.200.01.200 | Only for sample |
| RM521FGLEAR05A01M4G_01.200.01.200 | Only for sample |

#### 3.2. New Features

| RM521FGLEAR05A02M4G_01.200.01.200 |   |
|-----------------------------------|---|
| Item                              | Brief Description   |
| <b>GENERAL</b>                    | Added <b>AT+QRSSI</b> to obtain the RSSI of the current service network of the module.  |
| RM521FGLEAR05A01M4G_01.200.01.200 |   |
| Item                              | Brief Description   |
| <b>NETWORK</b>                    | Relevant technical controls have been carried out to restrict normal network registration in regions such as RUS and IRN, thus ensuring that the module can be used only for civilian applications. |
| <b>GENERAL</b>                    | The new firmware version cannot be downgraded to previous versions, otherwise the module will not be able to work normally.   |

#### 3.3. Improved Features

| RM521FGLEAR05A02M4G_01.200.01.200 |  |
|-----------------------------------|--|
| Item                              | Brief Description  |
| <b>NETWORK</b>                    | Solved the problem that an error was reported when the length of parameter <APN> in <b>AT+QICSGP</b> was 63 bytes. |
| <b>SIMCARD</b>                    | Solved the problem that <b>AT+QSIMLOCK</b> did not take effect in some scenarios.                                  |

RM521FGLEAR05A01M4G\_01.200.01.200

| Item | Brief Description |
|------|-------------------|
| /    | /                 |

### 3.4. Known Issues

| Item    | Bug Description  |
|---------|--|
| NETWORK | The module supporting n70 failed to register on network. |

#### NOTE

Verification Environment is shown below. For more details, please contact Quectel Technical Support.

For Windows, Windows 10 21H2

USB Driver: Quectel\_Windows\_USB\_Driver(Q)\_NDIS\_V2.4.6.zip

Qflash Tool: QFlash\_V6.0

For Linux, ubuntu16.04

QMI\_WWAN Driver: Quectel\_Linux&Android\_QMI\_WWAN\_Driver\_V1.2.1.zip

GobiNet Driver: Quectel\_Linux&Android\_GobiNet\_Driver\_V1.6.3.zip

PCIE Driver: Quectel\_Linux\_PCIE\_MHI\_Driver\_V1.3.1.zip

QFirehose Tool: Quectel\_LTE&5G\_QFirehose\_Linux&Android\_V1.4.8.zip

Quectel-CM Tool: Quectel\_QConnectManager\_Linux\_V1.6.1.zip

QLog Tool: Quectel\_QLog\_Linux&Android\_V1.4.17.zip

For IPQ:

Quectel PCIE Driver: Quectel\_Linux\_PCIE\_MHI\_Driver\_V1.3.0.15.zip

## 4. Functions List

| Category           | Item               | Supported Version (Since)         | Note |
|--------------------|--------------------|-----------------------------------|------|
| Basic Function     | Diagnosis          | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | Thermal Management | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | PHB                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | Upgrade            | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | FOTA               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | SMS                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Interface Function | PCIe               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | USB                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | UART               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Interface Protocol | RmNet              | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | MBIM               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Locate Function    | AGPS               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Protocol Function  | QMI                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| RF Function        | FTM                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Security Function  | Secure Login       | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | SIMlock            | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | (U)SIM             | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| SIM Function       | (U)SIM Hotswap     | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | DSSS               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | eSIM               | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
| Special Function   | SAR                | RM521FGLEAR05A01M4G_01.200.01.200 | /    |
|                    | 5G LAN             | RM521FGLEAR05A01M4G_01.200.01.200 | /    |

Low Power

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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.

