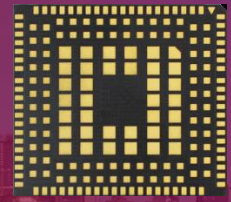


Quectel RG255C Series

5G RedCap Sub-6 GHz

LGA Module



RG255C-GL-AB

Release Notes

5G Module Series

Rev. RG255C-GL-AB_Firmware_Release_Notes_V0104_

A0.004.A0.004

Date: 2024-12-12

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1. Release Content

This document provides the Release Notes for RG255C-GL-AB. The current firmware includes the following firmware package.

Package	Firmware Version	Configuration Version
Firmware	RG255CGLABR01A04M4G	A0.004.A0.004

2. Matters Needing Attention

SN	Item
[1]	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.
[2]	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.
[3]	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 probability that the upgrade will fail, resulting in the module unable to boot, or there is a probability that the flash will be damaged.
[4]	The current firmware version supports Secure Boot and Secure Debugging, and the Quectel signature is included in the security firmware versions by default. Whether Secure Boot is enabled by default when the firmware version is shipped from the factory depends on the OC you select. Secure Debugging is disabled by default and you can enable it with AT commands as required.
[5]	The firmware version whose description is “only for sample” is only used for debugging, and is prohibited from mass production, certification or any other purposes.

3. Release History

3.1. Firmware Release History

Firmware Version	Configuration Version	Description
RG255CGLABR01A04M4G	A0.004.A0.004	Mass production
RG255CGLABR01A04M4G	A0.003.A0.003	Mass production
RG255CGLABR01A04M4G	A0.002.A0.002	Mass production
RG255CGLABR01A04M4G	01.002.01.002	Mass production
RG255CGLABR01A04M4G	01.001.01.001	Only for sample
RG255CGLABR01A03M4G	01.001.01.001	Only for sample

3.2. New Features

RG255CGLABR01A04M4G_A0.004.A0.004	
Item	Brief Description
DATA CALL	Added adaptive IPPT feature.
GENERAL	<p>Added the following AT commands:</p> <ul style="list-style-type: none"> ● AT+QXQCN to activate XQCN file configured in firmware or query XQCN file activated in firmware. ● AT+QSMSCFG="mms_receive" to configure whether to store WAP Push messages.
GENERAL	Supported PCIe MHI feature.
RG255CGLABR01A04M4G_A0.003.A0.003	
Item	Brief Description
LOW POWER	Supported USB suspend feature.
RG255CGLABR01A04M4G_A0.002.A0.002	
Item	Brief Description

SECURE BOOT	Added Secure Boot.
SECURE LOGIN	Supported secure login in recovery mode.
UART	Supported auto baud rate on main UART.

RG255CGLABR01A04M4G_01.002.01.002

Item	Brief Description
SLIC	Supported SLIC feature.
GENERAL	<p>Added the following AT commands:</p> <ul style="list-style-type: none"> ● AT+QNWCFG="nr5g_cell_type" to query whether the registered network type is RedCap. ● AT+QNWCFG="lte_band_priority" to the LTE band priority. ● AT+QNWCFG="nr5g_band_priority" to set the NR5G band priority. ● AT+QNWCFG="freq_info" to query the uplink and downlink frequencies of the current serving cell and control whether to query the uplink and downlink frequencies.

RG255CGLABR01A04M4G_01.001.01.001

Item	Brief Description
FOTA	Supported the report of upgrade progress at UART port during FOTA upgrade.
GENERAL	<p>Added the following AT commands:</p> <ul style="list-style-type: none"> ● AT+QRNRU to control whether USB is restarted when RNIDS IPPT without NAT mode is enabled. ● AT+QSECCFG to configure secure ADB and secure login features. ● AT+QPLATCFG="periph_cfg" to control whether CNSS and Ethernet peripherals are enabled. Peripherals are disabled by default.

RG255CGLABR01A03M4G_01.001.01.001

Item	Brief Description
/	/

3.3. Improved Features

RG255CGLABR01A04M4G_A0.004.A0.004	
Item	Brief Description
DATA CALL	Solved the problem that AT+QMAP="mpdn_rule" failed to configure the bridge mode for USB RNDIS.
eSIM	Solved the problem that AT+QESIM="delete_profile" returned an error after deleting eSIM profile successfully.
NETWORK	Solved the problem that UE did not report N1Mode = 1 when PLMN 999480 SIM card was used for Verizon certificate.
NETWORK	Solved the problem that UE did not report the eutra-EPC-HO-ToNR-FDD-FR1-r15 and eutra-EPC-HO-ToNR-TDD-FR1-r15 fields for Verizon certificate.
NETWORK	Configured device type as data centric for AT&T FirstNet test case.
NETWORK	Configured the module to display a status of "Not Roaming" after successful network registration when testing with a FirstNet SIM card under the AT&T 310410 network.
RNDIS	Fixed the RNDIS MAC address to avoid the abnormal IPPT functionality caused by the change of the MAC address after each restart of the RNDIS network.
GENERAL	Solved the problem of AT+CPOL execution error.
GENERAL	Supported returning the module name to the host when querying module ID through QMI_DMS_GET_DEVICE_MODEL_ID_REQ_V01 QMI message.
RG255CGLABR01A04M4G_A0.003.A0.003	
Item	Brief Description
AUDIO	Modified the supported values of <mode> in AT+QTTS to 0 and 2.
AUDIO	Modified the supported values of <region> in AT+QSLIC to 0–7.
DIAGNOSIS	Allowed ADB to run as root by default.
eSIM	Updated the eSIM library to solve the problem that AT+QESIM="trans" did not support profile data packets larger than 255 bytes.
eSIM	Modified the supported values of <totalen> in AT+QESIM="trans" to 0–204800.
GNSS	Solved the problem that the value returned after executing AT+QGPSCFG="agpsposmode" was incorrect.
USB	Solved the problem of USB response latency after getting wakeup events.
USB	Solved the problem of USB enumeration failure caused by enabling PCIe ADB.
GENERAL	Solved the problem that no "POWERED DOWN" was reported when executing AT+QPOWD .

RG255CGLABR01A04M4G_A0.002.A0.002

Item	Brief Description
eSIM	Adjusted the parameters of AT+QESIM="trans" to support a single transmission of DP+ messages up to 500 bytes.
GNSS	Solved the problem that the <spkm> value obtained by AT+QGPSLOC was inaccurate.
TCP	Adjusted the maximum length of APN name and APN authentication information.
TCP	Fixed the memory leakage caused by repeated execution of AT+QPING .
UART	Solved the problem that the baud rate could not be configured by AT+IPR .
GENERAL	Solved the problem that OK was missing in the return result of AT+QGSN .
GENERAL	Solved the problem that "&W" was missing in the response of AT&V .
GENERAL	Modified the return result of AT+CGDCONT? to meet the requirements of 3GPP protocol.

RG255CGLABR01A04M4G_01.002.01.002

Item	Brief Description
FTP(S)	Solved the problem that FTP(S) explicit mode did not work.
FTP(S)	Solved the problem that an error was returned when large files were uploaded to the server through AT+QFTPPUT .
GNSS	Modified the value range of <multiband> returned by AT+QGPSCFG="multibandconfig" from 0–39 to 0–7,32–39.
NETWORK	Solve the problem of module abnormality caused by frequent execution of AT+QENG="servingcell" .
NETWORK	Solved the problem that the signal values queried by AT+QENG="servingcell" and AT+QCSQ were abnormal.
SLIC	Solved the problem that SLIC could not supply power to the phone.
UART	Solved the problem that sending multiple Ctrl+C signals to UART ttylogin triggered system reboot.
USB	Extended the value of the <net> parameter in AT+QCFG="usbnet" to configure USB composition to support ADPL/QDSS ports.
GENERAL	Optimized the bootup URC reporting logic to solve the problem that the bootup notification URC was probabilistically lost during bootup.

RG255CGLABR01A04M4G_01.001.01.001

Item	Brief Description
eSIM	Updated the implementation of AT+QESIM="eid" to solve the problem that the response timed out when AT+QESIM="eid" was executed with a non-eSIM card

used.

RG255CGLABR01A03M4G_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,

USB Driver: Quectel_Windows_USB_Driver(Q)_NDIS_V2.7.6

Qflash Tool: QFlash_V6.8

Qwinlog Tool: QWinLog_V1.8.23

For Linux:

QMI_WWAN Driver: Quectel_Linux_Android_QMI_WWAN_Driver_V1.2.7

QFirehose Tool: QFirehose_Linux_Android_V1.4.18

Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.7

QLog Tool: QLog_Linux_Android_V1.5.22

4. Functions List

Category	Item	Supported Version (Since)	Note
Basic Function	Data Call	RG255CGLABR01A03M4G_01.001.01.001	/
	Diagnosis	RG255CGLABR01A03M4G_01.001.01.001	/
	Emergency Call	RG255CGLABR01A03M4G_01.001.01.001	/
	Thermal Management	RG255CGLABR01A03M4G_01.001.01.001	/
	Voice	RG255CGLABR01A03M4G_01.001.01.001	/
	VoLTE	RG255CGLABR01A03M4G_01.001.01.001	/
	VoNR	RG255CGLABR01A03M4G_01.001.01.001	/
	Upgrade	RG255CGLABR01A03M4G_01.001.01.001	/
	FOTA	RG255CGLABR01A03M4G_01.001.01.001	/
	SMS	RG255CGLABR01A03M4G_01.001.01.001	/
Audio	Audio	RG255CGLABR01A03M4G_01.001.01.001	/
	SLIC	RG255CGLABR01A04M4G_01.002.01.002	/
Interface Function	PCIe	RG255CGLABR01A03M4G_01.001.01.001	/
	USB	RG255CGLABR01A03M4G_01.001.01.001	/
	SGMII	RG255CGLABR01A03M4G_01.001.01.001	/
	UART	RG255CGLABR01A03M4G_01.001.01.001	/
Interface Protocol	ECM	RG255CGLABR01A03M4G_01.001.01.001	/
	RmNet	RG255CGLABR01A03M4G_01.001.01.001	/
	RNDIS	RG255CGLABR01A03M4G_01.001.01.001	/
Locate Function	GNSS	RG255CGLABR01A03M4G_01.001.01.001	/
	Xtra	RG255CGLABR01A03M4G_01.001.01.001	/
	AGPS	RG255CGLABR01A03M4G_01.001.01.001	/

Internal Protocol Function	NTP	RG255CGLABR01A03M4G_01.001.01.001	/
	NITZ	RG255CGLABR01A03M4G_01.001.01.001	/
	TCP	RG255CGLABR01A03M4G_01.001.01.001	/
	UDP	RG255CGLABR01A03M4G_01.001.01.001	/
	PING	RG255CGLABR01A03M4G_01.001.01.001	/
	SSL/TLS	RG255CGLABR01A03M4G_01.001.01.001	/
	HTTP(S)	RG255CGLABR01A03M4G_01.001.01.001	/
	FTP(S)	RG255CGLABR01A03M4G_01.001.01.001	/
	SMTP(S)	RG255CGLABR01A03M4G_01.001.01.001	/
	MQTT(S)	RG255CGLABR01A03M4G_01.001.01.001	/
RF Function	FTM	RG255CGLABR01A03M4G_01.001.01.001	/
Security Function	QTEE	RG255CGLABR01A03M4G_01.001.01.001	/
	Secure Boot	RG255CGLABR01A04M4G_A0.002.A0.002	Support Secure Boot.
	Secure Login	RG255CGLABR01A03M4G_01.001.01.001	/
	Secure Debugging	RG255CGLABR01A03M4G_01.001.01.001	/
SIM Function	SIMlock	RG255CGLABR01A03M4G_01.001.01.001	/
	(U)SIM	RG255CGLABR01A03M4G_01.001.01.001	/
	(U)SIM Hotswap	RG255CGLABR01A03M4G_01.001.01.001	/
	DSSS	RG255CGLABR01A03M4G_01.001.01.001	/
	eSIM	RG255CGLABR01A03M4G_01.001.01.001	/
Special Function	SAR	RG255CGLABR01A03M4G_01.001.01.001	/
	Time Service	RG255CGLABR01A03M4G_01.001.01.001	/
	Slice	RG255CGLABR01A03M4G_01.001.01.001	/
	uRLLC	RG255CGLABR01A03M4G_01.001.01.001	/
	Low Power	RG255CGLABR01A04M4G_A0.003.A0.003	/

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