LTE01_C_SDK_G

SDK Release Notes

LTE Standard Module Series

Rev. LTE01_C_SDK_G_SDK_Release_Notes_V0204

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Contents

1. Release Content

This document provides the Release Notes for LTE01R02A04_C_SDK_G. The module series supported by SDK currently are as follows:

- EC200G-CN-GK
- EC200G-CN-LA
- EC200G-CN-LE
- EC200G-CN-LF
- EC200G-CN-LM
- EC600G-CN-CD
- EC600G-CN-LA
- EC600G-CN-LD
- EC600G-CN-MD
- EC600G-EU-LD
- EC800G-CN-LB
- EC800G-CN-LD
- EC800G-CN-MD
- EC800G-CN-ND
- EG700G-CN-LC
- EG700G-CN-LD
- EG700G-CN-MD
- EG700G-CN-ND
- EG800G-CN-GB
- EG800G-CN-GD
- EG800G-EU-LB
- EG800G-EU-LD
- EG800G-LA-LD
- EG915G-EU-GD

2. Matters Needing Attention

SN	Item
[1]	The PDP context activated with **AT+CGACT**, **AT+QIACT** or data call API requires de-activation to configure a new APN.
[2]	Provide power supply to VBUS before turning on the module, and then turn VBAT on. It is recommended to wait for more than 2 s after VBAT pulls up and then pull down PWRKEY to turn on the module, and PWRKEY should be pulled down for more than 2 seconds.
[3]	Due to the small UFS space, when the delta firmware package is upgraded directly in UFS, if the package is too large, you can reduce its size by modifying the profiles such as by ignoring the preset files. If the delta firmware package is still too large after modification, please divide the package into several smaller ones for FOTA upgrade.
[4]	For the firmware version released in R01 baseline and R02 baseline: Module models with a RAM size of 8 M and a flash size of 8 M cannot download each other and perform FOTA upgrades on each other. Module models with a RAM size of 8 M and a flash size of 4 M can download each other but cannot perform FOTA upgrades on each other. For details, please contact Quectel Technical Support.
[5]	LTE/Wi-Fi Scan cannot be used at the same time.
[6]	To extend the service life of flash, it is recommended that the total number of operations related to powering on/off, CFUN switching, SIM card hot swapping, or dual-SIM switching should not exceed 30 times per day.
[7]	Preset files for functions such as GNSS, BT and TTS in the file system cannot be deleted at will.
[8]	The module turns on the remap function by default. This function is suitable for most operators' LTE network scenarios.

3. Release History

3.1. New Features

LTE01R02A04_C_SDK_G	
Item	**Brief Description**
Camera	Supported BF3095.
GPIO	Opened three pins: 5, 6, and 26.
HTTP	Added patch request method for HTTP.
SD	Added four new parameters, *drv_part_num*, *fs_front_blk_num*, *fs_back_blk_num* and *cb* to support dividing SD actual partitions and operating each partition independently.
GENERAL	Added PWM_AUDIO interface for configuring digital gain and setting the delay time after PA power-on.
GENERAL	Added interfaces to control dual-screen.
GENERAL	Released the RTOS header file to the CSDK.
GENERAL	Implemented L2TP dialing and communication functions.
GENERAL	Supported dual SIM function for software version with 8M flash (dual IMEI supporting is required in hardware).
GENERAL	Supported serial port baud rate of 10400.
GENERAL	Added *ql_uart_read_aviable()* and *ql_uart_write_aviable()* to query the remaining space for fifo reading and writing respectively.
GENERAL	Added *ql_uart_write ()* interface to send data to the USB virtual port.
LTE01R02A03_C_SDK_G	
Item	**Brief Description**
/	/
LTE01R02A02_C_SDK_G	
Item	**Brief Description**
AUDIO	Added API to query audio echo denoising.

AUDIO	Added call recording function to record mixed uplink and downlink audio data, with a sample rate of 16 K.
NETWORK	Supported obtaining long string name and short string name of TELCEL operators.

LTE01R02A01_C_SDK_G	
Item	**Brief Description**
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3.2. Improved Features

LTE01R02A04_C_SDK_G	
Item	**Brief Description**
(U)SIM	Removed dual SIM dual standby (CONFIG_QUEC_PROJECT_FEATURE_DSSS) configuration from *target.config*. Supported single SIM only by default, and dual SIM scene was configured by users.
AUDIO	Fixed the problem that the recorded sound may be only about 1 second and both parties on the call were silent when recording during the call.
AUDIO	Fixed the problem that an error may occur when audio was recorded during a call.
AUDIO	Fixed the problem that SIM1 call audio could not be recorded in dual-card scenario.
Camera	1. Fixed the problem of abnormal display of *ql_camPrint()*. 2. Supported camera to dynamically adjust resolution.
DFOTA	Fixed FOTA package verification failure caused by accidental deletion of GNSS preset file.
FILE	Fixed the problem of file operation on the drive letter when it was not mounted.
FILE	Fixed the problem that an error may occur if *ql_stat()*, *ql_fopen()* and *ql_fclose()* were asynchronously called to operate on the same file.
FILE	Fixed the problem that during re-mounting, a wild pointer problem would occur when the FAT file system used spaces that was used in the last mount failure.
GNSS	Supported ramboot solution to significantly shorten GNSS firmware update time. The firmware update was performed when GNSS was turned on for the first time, Not allowed to operate GNSS during the update process.
GNSS	Updated the GNSS firmware, added the Galileo satellite navigation system, fixed the problem of inconsistent GSV and GSA satellite numbers, insufficient azimuth and elevation angles without zero padding, and optimized AGPS.

GPIO	No longer supported GPIO functionality for KEYIN0, KEYIN1 and KEYIN2 pin.
SD	Fixed the problem that files in firmware could not be successfully preset to SD card.
SD	Fixed the problem that SDMMC2 failed to mount emmc in BOOT.
USB	1. Deleted the USB MSG mode and retain the function of USB MTP as a virtual USB disk. 2. Change the MODEM port to the NMEA port. 3. Added *ql_usb_enable()/ql_usb_disable()* to dynamically enable/disable USB.
USB	Added shielding USB remote wake-up function.
USB	Removed QL_USB_PROTOCOL_MSG protocol. If users need the function of virtual U disk (mass storage), MTP protocol that was used by default in demo can be adopted.
GENERAL	1. Increased the default available RAM space by about 100 K. 2. Reduced the stack space of kernel AT engine from 100 K to 32 K, and users can adjust *ql_model_feature_ctx.at_engine_stack* to modify the stack size according to actual usage.
GENERAL	Solved the problem that LCD screen brushing was abnormal after wake-up if LCD sleep function was not called during sleep.
GENERAL	Fixed the problem that if the audio file/audio stream/TTS/DTMF/TONE was interrupted during playing, the module may be abnormal.
GENERAL	Fixed the problem of abnormal LCD screen swiping at 50 Mhz clock frequency in BOOT.
GENERAL	Fixed the problem that the module may be abnormal after hardware reset and software reset in low power mode.
GENERAL	Solved the problem that firmware downloading may fail.
GENERAL	1. Solved the problem that an exception may occur when the LCD refreshed the screen at a high frequency. 2. Solved the problem that the actual output LCD_CLK clock did not match the configured clock frequency.
GENERAL	Modified the QL_SPI_ADDR_ALIGNED_ERROR error code description to change the address from non-4-byte alignment to non-32-byte alignment.
LTE01R02A03_C_SDK_G	
Item	**Brief Description**
HTTP	Optimized HTTP FOTA download logic.
LTE01R02A02_C_SDK_G	
Item	**Brief Description**
AUDIO	Support cutting part of audio functions as needed to free up space.

AUDIO	Solved the problem of poor sound quality when the module with embedded codec played MP3 files with 44.1 K sample rate.
FILE	Fixed the problem the file may be lost if the module powered down after 4-wire SPI NAND file system mounted.
FILE	Fixed the problem that when files were extracted to memory, the module could not work normally caused by the number of extracted files greater than 32.
HTTP	Optimized HTTP FOTA download logic.
HTTP	Solved the problem that an HTTP service probably received two *HTTP_EVENT_SESSION_DISCONNECT* events at a time under certain configurations.
MQTT	Fixed the problem that the application layer received duplicate ID packets if MQTT subscribed to topics with QOS=2.
MQTT	Fixed the problem that the module may not work normally in a possibility during MQTT retransmission.
NETWORK	Optimized *ql_nw_get_reg_status()* interface to obtain some parameters of registered LTE/GSM cells.
USB	Fixed MTP function: when files were copied from the module to the computer, cancelling the copy before the file copy is completed will lead to the problem of abnormal file copy next time.
GENERAL	Removed CloudOTA.
GENERAL	In the *ql_event_send()*/*ql_event_send_ex()* interface, not allowed to set event ID less than 10.
GENERAL	Fixed the problem that after the socket connection failure or the Ping packet sending failure, **AT+QPING** execution failed.

LTE01R02A01_C_SDK_G	
Item	**Brief Description**
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3.3. Known Issues

Item	Bug Description
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NOTE

Verification Environment is shown below. For more details, please contact Quectel technical support.

For Windows,
Windows system: Window10
USB driver: Quectel_Windows_USB_Driver(U)_For_ECM_RNDIS_V1.0.13
Qflash tool: Qflash V6.3

4. Functions List

Category	Item	Supported Version(Since)	Note
Basic API	Device Info	LTE01R02A01_C_SDK_G	/
	SMS	LTE01R02A01_C_SDK_G	/
	Timer	LTE01R02A01_C_SDK_G	/
	Alarm	LTE01R02A01_C_SDK_G	/
	Network	LTE01R02A01_C_SDK_G	/
	(U)SIM	LTE01R02A01_C_SDK_G	/
	LowPower	LTE01R02A01_C_SDK_G	/
	FILE	LTE01R02A01_C_SDK_G	Supports UFS and SD only.
	DIAG	LTE01R02A01_C_SDK_G	/
Applications API	GNSS	LTE01R02A01_C_SDK_G	/
	WIFI Scan	LTE01R02A01_C_SDK_G	/
Data Service API	TCP/UDP	LTE01R02A01_C_SDK_G	/
	HTTP	LTE01R02A01_C_SDK_G	/
	FTP	LTE01R02A01_C_SDK_G	/
	MQTT	LTE01R02A01_C_SDK_G	/
Peripheral API	GPIO	LTE01R02A01_C_SDK_G	/
	EINT	LTE01R02A01_C_SDK_G	/
	SPI	LTE01R02A01_C_SDK_G	/
	UART	LTE01R02A01_C_SDK_G	/
	USB	LTE01R02A01_C_SDK_G	/
	I2C	LTE01R02A01_C_SDK_G	/
	EMMC	LTE01R02A01_C_SDK_G	/

	SD	LTE01R02A01_C_SDK_G	/
	Camera	LTE01R02A04_C_SDK_G	/
Security API	SSL	LTE01R02A01_C_SDK_G	/
Others	DFOTA	LTE01R02A01_C_SDK_G	/
	FullFOTA	LTE01R02A01_C_SDK_G	/
	HTTP OTA	LTE01R02A01_C_SDK_G	/
	SIM Detection	LTE01R02A01_C_SDK_G	/

About Quectel

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