

EC20-CE-FAG R2.1

QuecOpen

Release Notes

LTE Standard Module Series

Rev. EC20-CE-FAG_R2.1_QuecOpen Firmware_Release_Notes_V0606

Date: 2019-06-06



1. Preamble

This document provides the Release Notes for EC20-CE-FAG R2.1 QuecOpen firmware version **EC20CEFAGR06A06M4G_OCPU**. It describes major changes compared to EC20-CE-FAG R2.1 QuecOpen firmware version **EC20CEFAGR06A05M4G_OCPU**. For a detailed refer to the QuecOpen Developer Guide, QuecOpen Hardware Design and EC20 R2.1 AT Command Set.

2. New Features

Item /Category	Brief Description	Since
WIFI	Added driver for CM256	R06A02
GENERAL	Added ext4 file system for EMMC, EMMC should use this file system by default.	R06A02
GENERAL	Added API to get MEID and IMEI	R06A02
AUDIO	Added codec auto detect function, codec need powered immediately when system powered on.	R06A02
GENERAL	Added NTP function, provide API to sync local time to NTP server.	R06A02
NETWORK	Added AT+QCFG="QOOS" command.	R06A03
AUDIO	Added API to tune voice call volume	R06A04
GENERAL	Added API to control PMU GPIO	R06A04
GENERAL	Added low-power-consume-v2.0 API, optimization low power implement	R06A04
AUDIO	Added armb stream recording.	R06A05
GENERAL	Supported LEDs flash during recovery upgrade.	R06A05
GENERAL	Added MISC partition to support save configuration feature.	R06A05
GENERAL	Added ql-app-monitor&mcm_ril_service when startup.	R06A05
GENERAL	Enabled the debug feature during about.	R06A05
GENERAL	Added startup type and added the interface of disabling RTC alarm and SMPL.	R06A05
NETWORK	Supported Ethernet WAN Route mode.	R06A05
NETWORK	Modified the conflict about netlink id.	R06A05

SGMII	Support dp83tc811s-q1(TI) PHY.	R06A05
SMS	Added API for call_end_reason_valid and SIM phonebook.	R06A05
USB	Supported mount and upgrade automatically for U disk.	R06A05
GENERAL	Added API for USB mode switching.	R06A05
WIFI	Added WIFI station event report.	R06A05
GENERAL	Added to pack recoveryfs in SDK.	R06A06
GENERAL	Added bootloader, recovery source code and recoveryfs into SDK.	R06A06

3. Improved Features

Item/Category	Brief Description	Since
DATA SERVICE	Optimized APN configuration API, add API to get APN list.	R06A02
SMS	Supported to Send/Receive long character short message on CDMA network.	R06A02
AUDIO	Optimized audio play and record API, provide interface to set PCM parameters.	R06A02
SMS	Fixed the bug when mcm_ril_service already exist, it won't register sms/voice indication problem.	R06A03
VOICE CALL	Fixed the bug VOLTE call Alerting and Incoming indication.	R06A03
VOICE CALL	Fixed the problem that VOICE ANSWER mcm message call id did not take effect.	R06A05
AUDIO	Changed the libql_lib_audio to version 00.02.0013.	R06A05
AUDIO	Solved the probabilistic problem that TTS has no sound when doing stress test.	R06A05
AUDIO	Changed the head file name of ql_lib_audio from ql_audio.h to ql_lib_audio.h.	R06A05
FOTA	Optimized FOTA process.	R06A05
FOTA	Deleted the DFOTA tools from SDK.	R06A05
GENERAL	Modified IPC communication mechanism of ql_manager_server. Supported WIFI configuration of startup detection and recovery. Solved the address reverse order problem of bridge0.	R06A05
GENERAL	Optimized time synchronization mechanism.	R06A05

GENERAL	Solved the problem that timeouts was insufficient caused QMI client create failed.	R06A05
GENERAL	Supported clean URC information by tcflush.	R06A05
GENERAL	Supported to select China Telecom MBN when the prefix of IMSI was 99904/46003 and select China Mobile MBN when the prefix of IMSI was 46013.	R06A05
GENERAL	Removed netmanage log.	R06A05
GENERAL	Solved the dsi_init timeouts in ql_manager was insufficient caused ql_manager_server abnormal.	R06A05
GENERAL	Solved QL_MCM_NW_GetNitzTimeInfo return error.	R06A05
GENERAL	Optimized file system restore mechanism.	R06A05
GNSS	Solved the problem that GNSS fixed fail under high temperature.	R06A05
GNSS	Optimized AT command AT+QGPSSUPLCA to solve the return error.	R06A05
GNSS	Solved the problem that the APN infos for AGPS did not take effect.	R06A05
LOWPOWER	Optimized ql_lpm driver for low power.	R06A05
LOWPOWER	Fixed the problem that could not enter sleep mode when client app exited abnormally or during shutdown/reboot.	R06A05
NETWORK	Solved the problem of getting operator_name error under 2G only.	R06A05
NETWORK	Solved the problem that QOOS mechanism could not be stopped by executing AT command AT+QOOS=0 .	R06A05
NETWORK	Solved the problem that the auth type of APN profile did not take effect.	R06A05
NETWORK	Solved the problem that MCM got inaccurate network registration status when network could not register network.	R06A05
NETWORK	Solved the double free problem when SetConfig returned.	R06A05
NETWORK	Supported created APN automatically when dialing with this inexistent APN.	R06A05
NETWORK	Optimized QL_APN_Get_Lists API	R06A05
NETWORK	Solved the problem that when the Telecom card switched MBN, XTRA was turned off, causing xtradata to read abnormally.	R06A05
NETWORK	Fixed the problem of QL_NW_SetServiceStatusCb calling status error.	R06A05
NETWORK	Solved the problem that the return value was incorrect when executed AT+COPS? and AT+QNWINFO after switching from CFUN 0 to CFUN 1.	R06A05

NETWORK	Solved the problem of PPP disconnection when executed AT command AT+COPS=0 .	R06A05
NETWORK	Fixed the problem that no service got from CEREG/CGREG/CREG while module was actually registering network after executing AT+COPS=2 and AT+COPS=1,2,"plmn" .	R06A05
NETWORK	Fixed mem leakage problem when did APN settings stress test.	R06A05
NETWORK	Added cell blacklist function when RRC access failure reached a certain condition.	R06A05
SGMII	Solved the problem that SGMII feature could not be disabled when without PHY chipset.	R06A05
SMS	Moved init to ahead to avoid sending sms fail problem.	R06A05
SMS	Refactored the decoding solution of CDMA SMS.	R06A05
SPI	Optimized SPI driver.	R06A05
SPI	Optimized the code for 6-line SPI.	R06A05
SPI	Solved 4-line SPI 4-byte alignment problem.	R06A05
UART	Disabled hardware flow control of main UART in UART-DPP.	R06A05
USB	Disabled UDC suspend.	R06A05
USB	Solved the problem that the USB enumeration twice on the first boot after downloading the firmware.	R06A05
USB	Disabled the default flow control of AT port.	R06A05
WIFI	Optimized AT command AT+QWBCAST and AT+QWMOCH to solve response errors.	R06A05
NETWORK	Improved uplink rate limitation at high temperature.	R06A05
WIFI/SGMII	Provided API to report abnormal WIFI/SGMII.	R06A05
LOWPOWER	Optimized low power performance.	R06A05
GENERAL	Supported to synchronize base station time zone time to the system.	R06A06
FOTA	Optimized the parameter partition restore mechanism.	R06A06
GENERAL	Solved the problem that only one of the two networks (CDMA and LTE) signal strength that voice camped was reported after Telecom SIM Card registered CDMA and LTE.	R06A06
LOWPOWER	Disabled default PMU GPIO6 32K CLOK output to reduce power consumption.	R06A06
GENERAL	Updated CMCC/CU/CT/ROW to the latest versions.	R06A06

VOICE CALL	Merged Qualcomm patch to solve the problem of abnormal VOLTE.	R06A06
FOTA	Optimized FOTA upgrade.	R06A06

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4. Functions

Basic API

Device Info	Voice Call	SMS	Data Service	Alarm	Network	USIM	Low Power
Y	Y	Y	Y	Y	Y	Y	Y

Applications API

GNSS	TTS
Y	Y

Peripheral API

GPIO	EINT	SPI	UART	I2C	EMMC	WIFI
Y	Y	Y	Y	Y	Y	Y

Security API

OpenSSL
Y

GENERALs

QMI	NTP	DFOTA	FullFOTA
Y	Y	Y	Y

NOTES

1. Y means the firmware supports this function.
2. N means the firmware does not support this function.