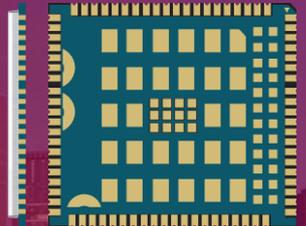


# Quectel EC25

IoT/M2M-optimized

LTE Cat 4 LCC Module



# EC25-E-FA\_KR

## Release Notes

**LTE Standard Module Series**

Rev. EC25-E-FA\_KR\_Firmware\_Release\_Notes\_V0802\_01.003.01.003

Date: 2021-11-08

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## 1. Release Content

This document provides the Release Notes for EC25-E-FA\_KR. The current release includes the following package.

Package	Version
Firmware	EC25EFAR08A02M4G_KR_01.003.01.003

## 2. Matters Needing Attention

SN	Item
[1]	In AP mode, due to memory limitations, WIFI supports 10 clients at most.

### 3. Release History

#### 3.1. Firmware Release History

Firmware Version	Description
EC25EFAR08A02M4G_KR_01.003.01.003	Mass production.
EC25EFAR08A02M4G_KR_01.002.01.002	Mass production.
EC25EFAR08A02M4G_KR_01.001.01.001	Mass production.
EC25EFAR08A02M4G_01.001.01.001	Mass production.
EC25EFAR08A01M4G_01.001.01.001	Mass production.

#### 3.2. New Features

EC25EFAR08A02M4G_KR_01.003.01.003	
Item	Brief Description
AUDIO	Supported saving recording files to SD card.
AUDIO	Added es8311 and es8374 codec, and added <b>AT+QDAI</b> to set the value of es8311 and es8374 codec ( <b>AT+QDAI=10</b> sets es8311, and <b>AT+QDAI=11</b> sets es8374).
TCP/UDP	Added <b>AT+QCFG="TCP/SendMode"</b> command to control when to report SEND OK.
TCP/UDP	Added commands below: 1. <b>AT+QICFG="send/auto"</b> to send specified data (heartbeat) regularly. 2. <b>AT+QICFG="recv/ignore"</b> to ignore the specified data (response) received.
TCP/UDP	Added AT command <b>AT+QICFG="wakeup/data"</b> to configure the content of the wakeup data packet.
GENERAL	Extended the GSM coding table to support more characters.
GENERAL	Added AT commands <b>AT+QCFG="urc/ri/udp"</b> and <b>AT+QCFG="urc/ri/udp_enable"</b> to control the RI of TCP/UDP.
EC25EFAR08A02M4G_KR_01.002.01.002	
Item	Brief Description

DFOTA	Supported DFOTA for KT & LGU.
GENERAL	Added IMS configuration commands <b>AT+QIMSCFG="session_timer"</b> and <b>AT+QIMSCFG="regpriority"</b> for SIP session timer and registration priority respectively.

**EC25EFAR08A02M4G\_KR\_01.001.01.001**

Item	Brief Description
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BT	Added AT command <b>AT+QBTGATADVDATA</b> to configure ADV data.
NETWORK	Added AT command <b>AT+QLTENGBR</b> to get LTE neighborhood information.
TCP SSL	Added AT command <b>AT+QSSLCFG="dtls"</b> to support DTLS function.
TCP/UDP	Added AT command <b>AT+QICFG="sendpktsize"</b> to set the size of data that can be sent by <b>AT+QISEND</b> . Added AT command <b>AT+QCFG="tcp/mss"</b> to set MSS size.
WIFI	Added AT command <b>AT+QWIFICFG="fc20_21"</b> to switch between FC21 and FC20 goldenbin.
GENERAL	Added AT command <b>AT+QDISIMEIW</b> to set the module to enter IMEI Protect mode and check whether the module is in IMEI Protect mode.
NETWORK	Added AT command <b>AT+QCOPSCFG</b> to configure the performance of <b>AT+QCOPS</b> command.
NETWORK	Added AT command to control <b>AT+COPS</b> to scan band, not affecting the band scan of <b>AT+QCFG="nwscanmodeex"</b> .
NETWORK	Added AT command <b>AT+QCFG="netmaskset"</b> to configure network card subnet mask.
GENERAL	Added AT command <b>AT+QWDNS</b> to configure DNS server address.
GENERAL	Added AT command <b>AT+QTXPWR</b> to get Tx power related information.
GENERAL	Added AT command <b>AT+QCFG="hardcoded_ecc_list"</b> .

**EC25EFAR08A02M4G\_01.001.01.001**

Item	Brief Description
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TCP/UDP	Added <b>AT+QISENDX</b> to send data directly.
Voice Call	Added <b>AT+QCFG="call_control"</b> to configure whether to automatically hang up a voice call.
GENERAL	Supported determining whether to filter UDP packets according to the destination address of DHCP by executing <b>AT+QCFG="dhcppktfltr",2</b> .
GENERAL	Added <b>AT+QBTSPPCOM</b> to establish SPP connection with remote Bluetooth device.

**EC25EFAR08A01M4G\_01.001.01.001**

Item	Brief Description
/	/

### 3.3. Improved Features

EC25EFAR08A02M4G_KR_01.003.01.003	
Item	Brief Description
<b>MQTT</b>	Solved the problem of MQTT connection failure.
<b>NETWORK</b>	Solved the problem that there was no network registration status reported at <b>AT+CFUN=0</b> execution after <b>AT+CREG/+CGREG/+CEREG</b> was set to report network registration status actively.
<b>RMNET</b>	Solved the problem that the module could not receive data after setting up a UDP server after NDIS dialing.
<b>TCP SSL</b>	Added SSL cipher suite, and deleted invalid suite.
<b>TCP SSL</b>	Fixed the problem of system instability caused by the use of ALPN in SSL.
<b>TCP/UDP</b>	Solved the problem that Modem would discard the TCP data packet sent by the server when window scale was 14.
<b>WIFI</b>	URC +WIFIAUTHFAIL was reported when devices connected to the module (work as WIFI AP) with wrong password).
<b>GENERAL</b>	Solved the problem that ERROR was returned by <b>AT+QIMSCFG=?</b> .
<b>GENERAL</b>	Solved the problem that the traffic statistics data obtained by <b>AT+QGDCNT</b> may be inaccurate sometimes.
<b>GENERAL</b>	Updated KT and LGU operator requirements to set sms_retry_limit to 0 and KT IP type to IPV4V6.

EC25EFAR08A02M4G_KR_01.002.01.002	
Item	Brief Description
<b>HTTP</b>	Solved the problem that the module automatically rebooted when <b>AT+QHHTTPPOSTFILE</b> sends a POST request to HTTP(S) server through a file larger than 1M.
<b>TCP/UDP</b>	Solve the problem of abnormal UDP IPV6 address.
<b>GENERAL</b>	Solved the problem that the positioning method returned by <b>AT+QGPSLOC</b> was inconsistent with GPGSA.
<b>GENERAL</b>	Modified 2nd, 3rd, and 4th APN for KT MBN, and updated the KT MBN version to 202106221.

**GENERAL** Solved the problem that the delay time of Linux data call was too much after the airplane mode was switched.

**EC25EFAR08A02M4G\_KR\_01.001.01.001**

Item	Brief Description
<b>AUDIO</b>	Solved the problem of no uac_fs and uac_music returned by <b>AT+QAUDCFG=?</b> .
<b>AUDIO</b>	Solved the problem that it failed to enable the PCM clock output by <b>AT+QCFG="pcmclk",1</b> at booting.
<b>AUDIO</b>	<ol style="list-style-type: none"> <li>Support playing MP3 single-channel and dual-channel files.</li> <li>Optimized the fast switching between the command <b>AT+QAUDPLAY</b> (to play the audio) and <b>AT+QAUDSTOP</b> (to stop audio play).</li> </ol>
<b>DFOTA</b>	Supported using the fixed baud rate set before upgrade during DFOTA upgrade.
<b>DFOTA</b>	Solved the problem of DFOTA upgrade failure caused by URL containing special characters.
<b>FTP</b>	Improved the operation of FTP related commands; Optimized FTP server compatibility, and supported the certificate encryption function.
<b>FILE</b>	Solved the problem that after the encrypted SFS file uploaded to FTP server was decrypted abnormally.
<b>HTTP</b>	Solved the <b>AT+QHTTPREAD</b> failed to read HTTP(S) server response information.
<b>MQTT</b>	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.
<b>MQTT</b>	Corrected the sever port range returned by <b>AT+QMTOPEN=?</b> to (1-65535).
<b>MQTT</b>	Solved the problem that +QMTSTAT:0,65535 may be reported after <b>AT+QMTOPEN</b> execution.
<b>NETWORK</b>	Solved the problem that after the module searched the network successfully, and <b>AT+CREG/AT+CGREG/AT+CEREG</b> set automatically reporting network registration status, there was no network registration status reported after executing <b>AT+CFUN=4/1</b> to deactivate network.
<b>PPP</b>	Solved the problem that PPP may disconnect under certain scenarios.
<b>QuecLocator 2.0</b>	Modified parameter format for AT commands related to base station positioning locator/LBS 2.0 as <b>AT+QLBSCFG?</b> , <b>AT+QLBSCFG=?</b> and <b>AT+QLBSCFG="token"</b> .
<b>TCP SSL</b>	Improved the stability of the module when TCP SSL was multiplexed at the same time.
<b>TCP SSL</b>	Solved the problem of incorrect data sending status returned by <b>AT+QSSSEND=&lt;clientID&gt;,0</b> .
<b>TCP/UDP</b>	Solved the problem that after TCP connection was established through debug port, incorrect socket connection port was returned by <b>AT+QISTATE</b> . (the connection port should be uart2.)

TCP/UDP	Solved the problem that the context type from IPv4v6 to IPv4 configured by <b>AT+QICSGP</b> did not take effect.
TCP/UDP	Solve the problem of abnormal UDP IPV6 address.
WIFI	Solved the problem that after setting a string SSID via <b>AT+QWSSIDHEX=1</b> , <b>AT+QWSSIDHEX=0</b> could not set a HEX SSID.
WIFI	Solved the problem that IPv6 information could not obtained by <b>AT+QWIFICFG="stainfo"</b> .
WIFI	Fixed WIFI worked as STA connected to AP, but PC using ECM could not connect to the network.
GENERAL	Solved the problem of serial port blocking caused by executing <b>AT+CGACT=1,1</b> to re-activate the first context that was already activated by default.
GENERAL	Optimized <b>AT+QPOWD=0</b> to fast shut down the module.
GENERAL	Solved the problem that the module could not work normally due to executing <b>AT+QACDBREAD</b> to read ACDB files in the AP/modem side.
GENERAL	Optimized the ubi read-write partition mounting and exception handling mechanism.
GENERAL	Supported VoLTE for Smartfren MBN and updated Smartfren MBN version to 'Commercial-Smartfren',0x0501250A,202012291.
GENERAL	Solved the problem that Host could not obtain the IP from MBIM if the network only allocated IP without DNS address.
GENERAL	Solved the problem that an empty menu list was obtained by <b>AT+QSTKGI=37</b> .
GENERAL	Solved the problem of invalid value returned by <b>AT+QCSQ</b> command caused by the delay in RSSI reporting.
GENERAL	Updated SE13 TABLE date to 2020/12/21.
GENERAL	Enforced to use USIM as EflmsiName under LGU network.
GENERAL	Solved the problem of getting DRX error when switching from 3G to LTE.
GENERAL	Correct the format of error code returned by <b>AT+QGPSCFG="gnssconfig",8</b> to +CME ERROR: 501.
GENERAL	Updated the VF_Germany_VoLTE MBN version to 202103022, adding two APNs, hos and sos.
GENERAL	Improved Korean certification configurations and updated KT MBN version to 202103061.
GENERAL	Improved Korean certifications and updated the LGU MBN version to 202103101.
GENERAL	Improved Korean certifications; modified the third and fourth APN profile for SKT, and updated SKT MBN version to 202103121.
GENERAL	Not triggered re-search the network by the module under the registered status when <b>AT+QPDPTRYCFG</b> disabled F1-F4 timer.
GENERAL	1. When peer IP address length was more than 50 chars, silently truncated the string to 50 chars.

2. Not triggered card power-down if EF-DIR read fails.
3. Populated file attributes for EST file when card did not return FCP data.
4. No sim E911 call for specific operators should not be blocked.

**GENERAL** Enabled automatically activating MBN through **AT+QMBNCFG="AutoSel"**.

**GENERAL** Updated Telstra-Commercial\_VoLTE MBN version to 202105192.

#### EC25EFAR08A02M4G\_01.001.01.001

Item	Brief Description
<b>AUDIO</b>	Solved the problem that the fail URC could not be reported immediately when the playback was interrupted after executing <b>AT+QLTONE</b> to play the tone repeatedly.
<b>Dual UART</b>	Solved the problem that the configuration of <b>AT+QCFG="urcport/sms",1</b> setting debug port to report SMS URC did not take effect.
<b>FTP</b>	Solve the probabilistic problem of download failure when performing resuming point downloads.
<b>FTP</b>	Solved the problem of occasional failure when uploading files with FTP service.
<b>HTTP</b>	Solved the problem that AT port did not return response after executing <b>AT+QHTTPSTOP</b> during handshaking procedure when connecting to HTTPS server.
<b>HTTP</b>	Solved the problem that the URC <b>+QHTTPURC: "closed"</b> was reported twice unexpectedly after executing <b>AT+QHTTPCFG="closed/ind",1</b> to enable the reporting of HTTP(S) session closing indication.
<b>HTTP</b>	Solved the low probability problem that the GET request would fail after performing HTTP(s) one-way authentication.
<b>HTTP</b>	Solved the problem that 702 error was reported when reading response sent from the server after sending a PUT request in a packet format through the serial port.
<b>MQTT</b>	Corrected the return value of <b>AT+QMTUNS=?</b> from <b>+QMTSUB</b> to <b>+QMTUNS</b> .
<b>QMI</b>	Added <b>AT+QCFG="qti/qmifrag"</b> to solve the problem of QMI call failure in NT98528BG platform.
<b>QuecLocator 2.0</b>	Solved the problem that APN configured by <b>AT+QLBSCFG="contextid"</b> could not take effect.
<b>WIFI</b>	Changed the default channel of <b>AT+QWMOCH</b> to 0 from 11.
<b>GENERAL</b>	mbim program was started with <b>AT+QCFG="usbnet",2</b> and no longer supported auto-start. The command configurations taken effect after the module was rebooted.
<b>GENERAL</b>	Improved the module stability when loading or unloading MAC driver.
<b>GENERAL</b>	Changed the default status of downlink rate of thermal mitigation algorithm to on.
<b>GENERAL</b>	Solved the problem that the ACDB file would be lost when executing <b>AT+QACDBLOAD</b> to import more than 5 ACDB files.
<b>GENERAL</b>	Enabled Tuner configurations.

<b>GENERAL</b>	Changed the mapping relations among hardware PIN143,144 and GPIO52,53.
<b>GENERAL</b>	Solved the problem that modem part of the module kept restarting when activating Smartfren MBN.
<b>GENERAL</b>	Optimized jamming detection algorithm in GSM mode.
<b>GENERAL</b>	Optimized interference protection features under WCDMA by adding anti-jitter feature.
<b>GENERAL</b>	Solved the problem that jammed was reported unexpectedly under the premise of weak signal or setting the rejection reason value when the interference protection feature was not turned on.

**EC25EFAR08A01M4G\_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\_LTE\_Windows\_USB\_Driver\_V2.2.4

Qflash Tool: QFlash\_V5.5

For Linux,

QFlash Tool: LTE&LTE-A\_QFlash\_Linux&Android\_V2.0

USB Driver: Quectel\_LTE&5G\_Linux\_USB\_Driver\_V1.0

Quectel-CM Tool: Quectel\_QConnectManager\_Linux\_V1.6.0.15

QLog Tool: Quectel\_QLog\_Linux&Android\_V1.4.10

QMI\_WWAN Driver: Quectel\_Linux&Android\_QMI\_WWAN\_Driver\_V1.2.0.14

GobiNet Driver: Quectel\_Linux&Android\_GobiNet\_Driver\_V1.6.2.9

## 4. Functions List

Category	Item	Supported Version(Since)	Note
Basic Function	SMS	EC25EFAR08A01M4G_01.001.01.001	/
	Voice Call	EC25EFAR08A01M4G_01.001.01.001	/
	Data Call	/	Not supported currently
	FAX	/	Not supported currently
	USSD	/	Not supported currently
	PHB	EC25EFAR08A01M4G_01.001.01.001	/
	STK	/	Not supported currently
	CMUX	EC25EFAR08A01M4G_01.001.01.001	/
	FILE	EC25EFAR08A01M4G_01.001.01.001	Supports RAM FILE only
Protocol Function	QMI	EC25EFAR08A01M4G_01.001.01.001	/
	TCP/UDP	EC25EFAR08A01M4G_01.001.01.001	/
	PPP	EC25EFAR08A01M4G_01.001.01.001	/
	FTP	EC25EFAR08A01M4G_01.001.01.001	/
	HTTP	EC25EFAR08A01M4G_01.001.01.001	/
	NITZ	EC25EFAR08A01M4G_01.001.01.001	/
	NTP	EC25EFAR08A01M4G_01.001.01.001	/
	TCP SSL	EC25EFAR08A01M4G_01.001.01.001	/
	MQTT	EC25EFAR08A01M4G_01.001.01.001	/
	MMS	EC25EFAR08A01M4G_01.001.01.001	Supports MMS sending only
	SMTP	EC25EFAR08A01M4G_01.001.01.001	/
	PING	EC25EFAR08A01M4G_01.001.01.001	/
	SMTPS	EC25EFAR08A01M4G_01.001.01.001	/
HTTPS	EC25EFAR08A01M4G_01.001.01.001	/	
Special Function	SIM Detection	EC25EFAR08A01M4G_01.001.01.001	/
	DFOTA	EC25EFAR08A01M4G_01.001.01.001	/
	ECM	EC25EFAR08A01M4G_01.001.01.001	/

LowPower	EC25EFAR08A01M4G_01.001.01.001	/
RMNET	EC25EFAR08A01M4G_01.001.01.001	/
DTMF	EC25EFAR08A01M4G_01.001.01.001	Supports DTMF decoding only
Dual UART	EC25EFAR08A01M4G_01.001.01.001	/
RNDIS	EC25EFAR08A01M4G_01.001.01.001	/
QuecLocator 2.0	EC25EFAR08A01M4G_01.001.01.001	Quec Locator 2.0 is an efficient location technology developed by Quectel. While it's not free, you need pay for it if you would like to use it.
UAC	EC25EFAR08A01M4G_01.001.01.001	/
SD	EC25EFAR08A01M4G_01.001.01.001	/
WIFI	EC25EFAR08A01M4G_01.001.01.001	/
BT	EC25EFAR08A01M4G_01.001.01.001	Supports SPP, BLE and HFG.

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