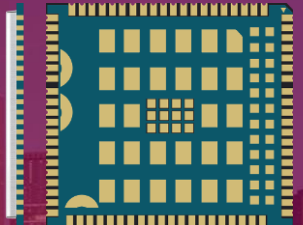


Quectel EC25

IoT/M2M-optimized

LTE Cat 4 LCC Module



EC25-E-FA

Release Notes

LTE Standard Module Series

Rev: EC25-E-FA_Firmware_Release_Notes_V0806_20.201.20.201

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Contents

Contents	2
1. Release Content	3
2. Matters Needing Attention	3
3. Release History	3
3.1. Firmware Release History	3
3.2. New Features	4
3.3. Improved Features	6
3.4. Known Issues	11
4. Functions List	12

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1. Release Content

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

Package	Version
Firmware	EC25EFAR08A06M4G_20.201.20.201

2. Matters Needing Attention

SN	Item
[1]	In AP mode, due to memory limitations, WIFI supports 10 clients at most.
[2]	The new firmware version cannot be downgraded to previous versions, otherwise the module will not be able to work normally.

3. Release History

3.1. Firmware Release History

Firmware Version	Description
EC25EFAR08A06M4G_20.201.20.201	Mass production.
EC25EFAR08A06M4G_20.200.20.200	Mass production.
EC25EFAR08A05M4G_20.001.20.001	Mass production.
EC25EFAR08A04M4G_20.001.20.001	Mass production.
EC25EFAR08A03M4G_20.001.20.001	Mass production.
EC25EFAR08A02M4G_01.001.01.001	Mass production.
EC25EFAR08A01M4G_01.001.01.001	Mass production.

3.2. New Features

EC25EFAR08A06M4G_20.201.20.201

Item	Brief Description
GENERAL	Added the function of automatically downloading XTRA.

EC25EFAR08A06M4G_20.200.20.200

Item	Brief Description
NETWORK	Relevant technical controls have been carried out to restrict normal network registration in regions such as RUS and IR, thus ensuring that the module can be used only for civilian applications.
GENERAL	Added AT+QGPSPPI to obtain positioning analysis data.
GENERAL	Added AT+QIMSCFG="ims_status" to enable IMS URC.
GENERAL	The new firmware version cannot be downgraded to previous versions, otherwise the module will not be able to work normally.

EC25EFAR08A05M4G_20.001.20.001

Item	Brief Description
AUDIO	Supported recording 16K audio files in wav format.
NETWORK	Added AT+QNWCFG="rej_cause_7_mapping" command to control whether to map the network rejection reason value #7.
TCP SSL	Solved the problem that an error occurred at AT+QSSLCFG="renegotiation" to set.
GENERAL	In SoftSIM SDK, supported the rollback function if the upgrade fails.
GENERAL	Added AT command AT+QGPSSNRTEST to test CN of satellite signal.
GENERAL	Added AT command AT+QCFG="secbootstat" to get SecBoot status.

EC25EFAR08A04M4G_20.001.20.001

Item	Brief Description
AUDIO	Supported Codec: ES8311.
AUDIO	Supported saving recording files to SD card.
CMUX	Added AT command AT+QCFG="cmux/flowctrl" to control hardware flow control in CMUX mode.
HTTP	Added the AT command AT+QHTTPCFGEX , and AT+QHTTPCFGEX="send_add" can support the configuration of up to 36 parameters for POST multiple files to the

	server.
TCP SSL	Added AT command AT+QSSLOPENEX to support the establishment of SSL connection in a short time.
TCP/UDP	Added AT+QCFG="TCP/SendMode" command to control when to report SEND OK.
TCP/UDP	Added commands below: 1. AT+QCFG="send/auto" to send specified data (heartbeat) regularly. 2. AT+QCFG="recv/ignore" to ignore the specified data (response) received.
TCP/UDP	Added AT command AT+QCFG="wakeup/data" to configure the content of the wakeup data packet.
GENERAL	Added AT commands AT+QCFG="urc/ri/udp" and AT+QCFG="urc/ri/udp_enable" to control the RI of TCP/UDP.
EC25EFAR08A03M4G_20.001.20.001	
Item	Brief Description
BT	Added AT command AT+QBTGATADVDATA to configure ADV data.
FTP	Improved the operation of FTP related commands; Optimized FTP server compatibility, and supported the certificate encryption function.
MQTT	Added AT command AT+QMTCFG="protocol/check" to configure whether to start checking the MQTT header.
QuecThing	Supported QuecThing.
NETWORK	Added AT command AT+QLTENGBR to get LTE neighborhood information.
TCP SSL	Added AT command AT+QSSLCFG="dtls" to support DTLS function.
TCP/UDP	Added AT command AT+QCFG="sendpktsize" to set the size of data that can be sent by AT+QISEND .
TCP/UDP	Added AT command AT+QCFG="tcp/mss" to set MSS size.
WIFI	Added AT command AT+QWIFICFG="fc20_21" to switch between FC21 and FC20 goldenbin.
NETWORK	Added AT command to control AT+COPS to scan band, not affecting the band scan of AT+QCFG="nwscanmodeex" .
NETWORK	Added AT command AT+QCFG="netmaskset" to configure network card subnet mask
GENERAL	Added AT command AT+QWDNS to configure DNS server address.
GENERAL	Added AT command AT+QCFG="freezeband" to allow/disable bandpref configuration.
GENERAL	Added AT command AT+QCFG="hardcoded_ecc_list" .
GENERAL	Supported Airtel MBN: "Commercial-Airtel",0x05011A0A,000000000.

GENERAL Supported Radrock PA.

EC25EFAR08A02M4G_01.001.01.001

Item	Brief Description
TCP/UDP	Added AT+QISENDX to send data directly.
Voice Call	Added AT+QCFG="call_control" 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 AT+QCFG="dhcppkfltr",2
GENERAL	Added AT+QCFG="VENDOR" to enable or disable the customized feature that the effect of AT+QCFG="roamservice" was same with AT+QCFG="roamserviceex" . The customized feature was disabled by default.

EC25EFAR08A01M4G_01.001.01.001

Item	Brief Description
/	/

3.3. Improved Features

EC25EFAR08A06M4G_20.201.20.201

Item	Brief Description
NETWORK	Optimized the network registration of frequency 2452 in Band 5.
GENERAL	Optimized the problem the obtained positioning information was incorrect after waking up from sleep.
GENERAL	Fixed the problem that AT+QIDNSCFG failed to set IPv6 DNS.
GENERAL	Optimized CMUX channel.

EC25EFAR08A06M4G_20.200.20.200

Item	Brief Description
CMUX	Fixed the problem that channel four could not work normally after four CMUX virtual ports were enabled.
HTTP	Fixed the problem that the URC was not returned after executing AT+QHTTPPOST expired.
HTTPS	Fixed the problem of error code 702 reported in low probability when HTTPS file uploaded.

MQTT	Fixed the problem that MQTT PINGREQ packets would still be sent after executing AT+QMTCFG="keepalive",0 .
MQTT	Fixed the problem that the URC of +QMTRECV could not be reported.
NETWORK	Fixed the problem that BSIC of the 2G frequency point scanned by AT+QOPS was empty.
SMTP	Solved the problem of slow data sending of SMTP.
SMTP	Fixed the problem that the error code 423 was reported when uploading files to UFS via USB, because the file descriptor was not properly turned off after UFS attachment files in certain size was sent through SMTP.
Voice Call	Solved the problem of system instability during the dialing process.
GENERAL	Solved the problem that AT+QCSQ returned a positive number (expect a negative value).
GENERAL	Fixed the problem that the return value was abnormal when AT+QFLST queried.
GENERAL	Resolved the problem of handshake failure caused by abnormal handshake time set by DTLS.
GENERAL	Solved the problem that CREG URC did not report.
GENERAL	Updated the third APN in Telefonica MBN to sos.

EC25EFAR08A05M4G_20.001.20.001

Item	Brief Description
DTMF	Modified to support sending a maximum of 32 tones at DTMF sending.
HTTPS	Fixed the problem that the module was unstable after receiving RST during HTTPS handshake.
SMS	Solved the problem that the response format was incorrect when an error returned by AT+CMGL=4 to read a SMS.
SMS	Fixed the problem that the received SMS was not stored in ME space restored by AT&F .
SMTP	Optimized the recipients display of SMTP, and fixed the problem that more contacts cannot be viewed in the content of sent emails.
Voice Call	Solved the problem that the previous call number returned by AT+CLIP may be abnormally sometimes.
GENERAL	Set the ROW MBN profile1 to null and profile3 APN name to SOS.
GENERAL	According to STK authentication requirements, modified the MTU value to 1440.
GENERAL	Solved the problem that TF_Spain_VoLTE MBN could not be activated normally after auto-select MBN was enabled and TF_Spain card was inserted.
GENERAL	Update the Telstra MBN version to set the first APN to NULL.

GENERAL	Solved the problem that executing AT+QISEND ending with character "\r\n" would cause the server to receive data abnormally.
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EC25EFAR08A04M4G_20.001.20.001

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

EC25EFAR08A03M4G_20.001.20.001

Item	Brief Description
AUDIO	<ol style="list-style-type: none"> 1. Support playing MP3 single-channel and dual-channel files. 2. Optimized the fast switching between the command AT+QAUDPLAY (to play the audio) and AT+QAUDSTOP (to stop audio play).
DFOTA	Solved the problem of DFOTA upgrade failure caused by HTTP URL containing special characters.
HTTP	Solved the AT+QHHTTPREAD failed to read HTTP(S) server response information.
MQTT	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.
MQTT	Fixed the problem of module instability caused by failure of two-way authentication using SSL.
PPP	Solved the problem that PPP may disconnect under certain scenarios.
TCP SSL	Improved the stability of the module when TCP SSL was multiplexed at the same time.
TCP SSL	Solved the problem of incorrect data sending status returned by AT+QSSSEND=<clientId>,0 .
TCP/UDP	Solved the problem that after TCP connection was established through debug port, incorrect socket connection port was returned by AT+QISTATE . (the connection port should be uart2.)

TCP/UDP	Solved the problem that the context type from IPv4v6 to IPv4 configured by AT+QICSGP did not take effect.
TCP/UDP	Solve the problem of abnormal UDP IPV6 address.
WIFI	Solved the problem that IPv6 information could not obtained by AT+QWIFICFG="stainfo" .
WIFI	Fixed WIFI worked as STA connected to AP, but PC using ECM could not connect to the network.
GENERAL	Optimized AT+QPOWD=0 to fast shut down the module.
GENERAL	Solved the problem that the module could not work normally due to executing AT+QACDBREAD 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 of serial port blocking caused by executing AT+CGACT=1,1 to re-activate the first context that was already activated by default.
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 of invalid value returned by AT+QCSQ command caused by the delay in RSSI reporting.
GENERAL	Updated SE13 TABLE date to 2020/12/21.
GENERAL	Updated the VF_Germany_VoLTE MBN version to 202103022, adding two APNs, hos and sos.
GENERAL	Not triggered re-search the network by the module under the registered status when AT+QPDPTTRYCFG disabled F1-F4 timer.
GENERAL	When peer IP address length was more than 50 chars, silently truncated the string to 50 chars.
GENERAL	Not triggered card power-down if EF-DIR read fails.
GENERAL	Populated file attributes for EST file when card did not return FCP data.
GENERAL	No sim E911 call for specific operators should not be blocked.
GENERAL	Solved the problem that the positioning method returned by AT+QGPSLOC was inconsistent with GPGSA.

EC25EFAR08A02M4G_01.001.01.001

Item	Brief Description
AUDIO	Solved the problem that the URC could not be reported immediately when the playback was interrupted after executing AT+QLTONE to play the tone repeatedly.
Dual UART	Solved the problem that the configuration of AT+QCFG="urcport/sms",1 setting debug port to report SMS URC did not take effect.

FTP	Solve the probabilistic problem of download failure when performing resuming point downloads.
FTP	Solved the problem of occasional failure when uploading files with FTP service.
HTTP	Solved the problem that AT port did not return response after executing AT+QHTTPSTOP during handshaking procedure when connecting to HTTPS server.
HTTP	Solved the problem that the URC +QHTTPURC: "closed" was reported twice unexpectedly after executing AT+QHTTPCFG="closed/ind",1 to enable the reporting of HTTP(S) session closing indication.
HTTP	Solved the low probability problem that the GET request would fail after performing HTTP(s) one-way authentication.
HTTP	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.
MQTT	Corrected the return value of AT+QMTUNS=? from +QMTSUB to +QMTUNS.
QMI	Added AT+QCFG="qti/qmifrag" to solve the problem of QMI call failure in NT98528BG platform.
QuecLocator	Solved the problem that APN configured by AT+QLBSCFG="contextid" could not take effect.
WIFI	Changed the default channel of AT+QWMOCH to 0 from 11.
GENERAL	mbimd program was started with AT+QCFG="usbnet",2 and no longer supported auto-start. The command configurations taken effect after the module was rebooted.
GENERAL	Solved the problem that the default value returned by AT+QGPSCFG="AGPSPOSMODE" was incorrect after the module was booted for the first time when the firmware package was downloaded and the SIM card of China Unicom/China Mobile/China Telecom was inserted.
GENERAL	Improved the module stability when loading or unloading MAC driver.
GENERAL	Solved the problem that ql_manager_server was not started when booting the module.
GENERAL	Changed the default status of downlink rate of thermal mitigation algorithm to on.
GENERAL	Solved the problem that the ACDB file would be lost when executing AT+QACDBLOAD to import more than 5 ACDB files.
GENERAL	Solved the problem that modem part of the module kept restarting when activating Smartfren MBN.
GENERAL	Solved the problem that the status light was not turned on after powering on the module.
GENERAL	Optimized jamming detection algorithm in GSM mode.
GENERAL	Optimized interference protection features under WCDMA by adding anti-jitter feature.
GENERAL	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_V6.3.

For Linux,

QFirehose Tool: QFirehose_Linux_Android_V1.4.13.

USB Driver: Quectel_LTE&5G_Linux_USB_Driver_20220622.

Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.4.

QLog Tool: Quectel_QLog_Linux&Android_V1.5.17.

QMI_WWAN Driver: Quectel_Linux&Android_QMI_WWAN_Driver_V1.2.2.

GobiNet Driver: Quectel_Linux&Android_GobiNet_Driver_V1.6.3.

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.	DTMF
Dual UART	EC25EFAR08A01M4G_01.001.01.001	/	
RNDIS	EC25EFAR08A01M4G_01.001.01.001	/	
QuecLocator	EC25EFAR08A01M4G_01.001.01.001	QuecLocator 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	/	
BT	EC25EFAR08A03M4G_20.001.20.001	Supports BLE, SPP and HFG.	
WIFI	EC25EFAR08A03M4G_20.001.20.001	/	
QuecThing	EC25EFAR08A03M4G_20.001.20.001	/	

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