

# **EC25-E-FA** Release Notes

## **LTE Module Series**

Rev. EC25-E-FA\_Firmware\_Release\_Notes\_V0604

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## 1. Preamble

This document provides the Release Notes for EC25-E-FA firmware version **EC25EFAR06A04M4G\_01.004.01.004**. It describes major changes compared to EC25-E-FA firmware version **EC25EFAR06A03M4G**. For a detailed listing of all changes, refer to the EC25 AT Command Set.

## 2. New Features

Item/Category	Brief description	Since
<b>NETWORK</b>	Added the <b>AT+QXPWR</b> to query the main receiving and diversity reception signal parameters.	R02A05
<b>UART</b>	Added the AT command <b>AT+QCFG="urc/ri/pin"</b> to set RI pin.	R02A06
<b>DTMF</b>	Added the AT command <b>AT+QCFG="vts/async",&lt;n&gt;</b> .	R02A06
<b>GENERAL</b>	Added <b>AT+QCFG="imsreg/iptype",&lt;ver&gt;</b> command to indicate IMS registration by IPV4 or IPV6.	R02A06
<b>OTHER</b>	Added <b>AT+QEMMINFO</b> to query reject_cause T3402 and T3412 timer value	R02A07
<b>AT+QCOPS</b>	Added <b>AT+QCOPS</b> command.	R02A08
<b>OTHERS</b>	Added <b>AT+QTXFTM</b> command.	R02A08
<b>Audio</b>	Support Audio over USB feature.	R02A08
<b>OTHERS</b>	Support FASTBOOT upgrade mode.	R02A08
<b>AT+QDAI</b>	Support PCM 16K by <b>AT+QDAI</b> command.	R02A08
<b>OTHERS</b>	Added <b>AT+QACDBLOAD</b> command.	R02A09
<b>OTHERS</b>	Added <b>AT+QCFG="fast/poweroff"</b> command.	R06A01
<b>GENERAL</b>	Support RF TUNER feature.	R06A02
<b>GENERAL</b>	Support to reduce TX POWER for temperature protection.	R06A02
<b>HTTP</b>	Added <b>AT+QHTTPCFG="window size"</b> to configure the size of TCP slide window.	R06A02
<b>HTTP</b>	Added <b>AT+QHTTPCFG="auth"</b> to set user name and password to log in HTTP server.	R06A02
<b>HTTP</b>	Added <b>AT+QHTTPCFG="closewaittime"</b> to configure time to force close HTTP socket. Change default time from 120s to 60s.	R06A02
<b>AT+QCFG="icf"</b>	Added <b>AT+QCFG="icf"</b> command to configure serial data bit, stop bit and parity bit.	R06A02
<b>AT+QAUDCFG="voldetmfcfg"</b>	Added <b>AT+QAUDCFG="voldetmfcfg"</b> to configure length and volume of DTMF tone.	R06A02

<b>AT+QCFG="apn /blocked"</b>	Added <b>AT+QCFG="apn/blocked"</b> to support resend PDP activate request when APN is blocked.	R06A02
<b>OTHERs</b>	Added <b>AT+QLTENGBR</b> command to query LTE neighbor cells.	R06A03
<b>OTHERs</b>	Added <b>AT+QCOPSCFG</b> command.	R06A03
<b>OTHERs</b>	Added <b>AT+QMMSCFG="connecttimeout"</b> to configure timeout for MMS connection.	R06A03
<b>OTHERs</b>	Added <b>AT+QMKFS="vfat"</b> to format SD card.	R06A03
<b>OTHERs</b>	Added <b>AT+QNWLOCK="common/lte"</b> command to lock LTE cell.	R06A03
<b>OTHERs</b>	Added <b>AT+QCFG="ntp"</b> to configure retry count and interval for NTP request.	R06A03
<b>OTHERs</b>	Added <b>AT+QLEDSTAT</b> command to configure cycle for network status light.	R06A03
<b>OTHERs</b>	Support MAX9860 codec by <b>AT+QDAI=4</b> .	R06A03
<b>OTHERs</b>	Added <b>AT+QCFG="bip/auth"</b> to configure authentication type when opening BIP channel.	R06A03
<b>OTHERs</b>	Added <b>AT+QCFG="urc/poweron"</b> to disable/enable URC related to SIM card.	R06A03
<b>PPP</b>	Added AT command <b>AT+QCFG="ppp/sleep_ri"</b> .	R06A04
<b>SSL</b>	Added AT command <b>AT+QSSLCFG="clientkey"</b> .	R06A04
<b>OTHERs</b>	Added AT command <b>AT+QCFG="divctl"</b> .	R06A04
<b>TCP/UDP</b>	Added AT command <b>AT+QCFG="tcp/windowsize"</b> .	R06A04
<b>HTTP</b>	Added PUT and PUTFILE commands in HTTP, added QHTTPCFG&&CUSTOM_HEADER command for customers to define HTTP headers for themselves.	R06A04
<b>GENERAL</b>	Retried to activate PDP with interval of 1m/2m/3m/5m/10m/15m... when UE received cause number 29/33/38 for PDP activation on Telefonica network.	R06A04
<b>GENERAL</b>	Forbidden to execute <b>AT+CLCK="ai",1,"1234"</b> ; <b>AT+CLCK="ai",0,"1234"</b> ; <b>AT+CLCK="ao",0,"1234"</b> ; <b>AT+CLCK="ao",1,"1234"</b> ; and allowed to execute <b>AT+CLCK="ai",2;</b> <b>AT+CLCK="ao",2;</b>	R06A04
<b>GENERAL</b>	Forbidden to execute <b>AT+CUSD</b> command when FDN was locked on Telefonica SIM card.	R06A04
<b>OTHERs</b>	Added new parameter on <b>AT+QCOPS</b> to query cell id of LTE network.	R06A04
<b>HTTP</b>	Added AT command <b>AT+QHTTPCFG="auth"</b> to support to set user name and password to log in http server.	R06A04

OTHERs	Added <b>AT+QCFG="w_disable_pin"</b> to configure whether w_disable pin is used to indicate status of RF PA. The function was disabled by default.	R06A04
DT	Refreshed NV 947/5895/7145 as DT required automatically.	R06A04
DT	Remained on manual network scan mode if UE failed to register by <b>AT+COPS=1,2,&lt;plmn&gt;</b> .	R06A04

### 3. Improved Features

Item/Category	Brief description	Since
CMUX	Fixed the bug that command <b>AT+QISTATE</b> return the unknown characters when establishes a TCP connection under CMUX serial port.	R02A03
TCP/UDP	Fixed the bug that the data will be discarded under TCP push mode.	R02A03
TCP/UDP	Fixed the bug that RI pin indicates invalid under TCP receives data in push mode.	R02A03
TCP/UDP	Fixed the bug that command <b>AT+QISEND</b> query results error.	R02A03
FTP	Fixed the bug that command <b>AT+QFTPSTAT</b> return the error status when data uploading.	R02A03
FTP	Fixed the bug that the <b>AT+QFTPPUT</b> parameter is set to 2, the implementation of successful and be able to upload files, expected return is <b>ERROR</b> .	R02A03
FTP	Fixed the bug that executing the <b>AT+QFTPPUT</b> command to upload data length is set to 0, is not an error and to upload, expected return is <b>ERROR</b> .	R02A03
FTP	Fixed the bug that executing the <b>AT+QFTPLIST</b> command configuration is empty or Chinese characters or file does not exist, to list the results, expected return is <b>ERROR</b> .	R02A03
CALL	Fixed the bug in the TCP transparent mode, when receiving calls <b>ATA</b> receive the error, expect the <b>ATA</b> to receive calls.	R02A03
Audio	Improve the default audio EEC value	R02A04
FTP	Fixed the bug that executing the <b>AT+QFTPPUT</b> command to upload from UFS has opened the file, is not an error and to upload, expected return is <b>ERROR</b> .	R02A04
Audio	Fixed the bug alsaucm test pipe may cause no voice.	R02A04
TCP/UDP	Modify the randomly generated method for local port when tcpip build tcp connect.	R02A04
TCP/UDP	Fixed qicsgp maximum support 127 bytes username and password configuration.	R02A04
Audio	Fixed the bug about before playing the TTS, it can appear the problem of pop noise. And add the AT command <b>AT+QCFG="codec/powsave"</b> used to optimize the pop problem.	R02A04

GENERAL	Fixed the qc automatic detection successful sd card, again configuration qsdmount is 1 to load the card, still can success.	R02A04
Audio	Fixed the bug about before playing the TTS, it can appear the problem of pop noise. And add the AT command.	R02A04
Audio	Fix the bug <b>AT+QEEC</b> configuration could change the value of <b>QAUDMOD</b> .	R02A04
FTP	Fixed the bug that executing the <b>AT+QFTPPUT</b> command to upload from UFS has opened the file, is not an error and to upload, expected return is <b>ERROR</b> .	R02A04
NETWORK	Modify the default search network order as LTE firstly.	R02A05
GENERAL	Fixed the bug CBC could not execute without SIM card.	R02A05
PPP	Fixed the bug that module cannot hand up when send hang frame in PAP authentication stage or sending the command <b>AT+QPPDROP</b> .	R02A05
GENERAL	Fixed the bug <b>AT+QADC</b> & <b>AT+QADCTEMP</b> execute error.	R02A05
COMMON	Fixed the bug that module still in sleep mode when DTR in low state.	R02A06
TCP/UDP	Fixed the bug that the module can't register to network with <b>AT+CFUN=0/1</b> command after TCP connection setup.	R02A06
COMMON	Fixed the bug that <b>AT+CBC</b> command return error while no SIM card is inserted.	R02A06
TCP/UDP	Fixed the bug that <b>AT+QIRD</b> can't read the specified data with the setting length.	R02A06
SIMCARD	Fixed the bug that the IOT card of Telecommunications can't register to network.	R02A06
TCP/UDP	Fixed the bug that the module crashed if transport files about 3M in TCP data connection mode.	R02A06
NETWORK	Fixed the bug that <b>AT+QENG="servingcell"</b> and <b>AT+QENG="neighbourcell"</b> can't get the cell and neighbor cell information in AUTO mode without SIM card.	R02A06
NETWORK	Modified the format of SMTP header to support gmail.	R02A07
BUG	Fixed the issue that SD file can't be sent by <b>AT+QHTTPPOST</b> when its length is less than 2048.	R02A07
BUG	Fixed the crash issue when module upload file of 10M size from serial port by <b>AT+QFTPPUT</b> .	R02A07
BUG	Fixed the issue that URC can't output after <b>AT+QFUPL</b> .	R02A07
Voice Call	Added "NO CARRIER" when incoming call is turned off on automatic answering mode.	R02A08
OTHERS	Fixed the issue that B7 can't be supported by <b>AT+QRXFTM</b> cmd.	R02A09
Voice Call	Fixed the issue that there will be no voice when setting audio parameters immediately after <b>ATD</b> command.	R06A01
AT+CEER	Support to configure numeric code or string code by <b>AT+CEER</b> . Default is numeric.	R06A02
OTHERS	Fixed issue that +CBM couldn't be reported when DTR is pulled down.	R06A02
Voice Call	Clear extra ring-back tone from special VOLTE network.	R06A02

GENERAL	Fixed SD_VDD to 2.85V without SD card inserted. It is mainly used to support active GPS antenna for MINIPCIE type.	R06A02
HTTP	Fixed frequent HTTP timeout error when posting file without HTTP header.	R06A02
SMS	Support to execute <b>AT+CNMA</b> after receiving +CMT message when <mode> of <b>AT+CNMI</b> is set to 1 or 2 and type of message service is set as 1 by <b>AT+CSMS</b> .	R06A02
USSD	Fixed that USSD URC couldn't be reported during PPP connection.	R06A02
GENERAL	Extend <b>AT+QCOPS</b> command to support display cell id instead of PCI for LTE frequency.	R06A02
NETWORK	Change CREG to show registration when registering to EPS only network.	R06A02
GENERAL	Fixed net_status to off status when module goes in sleep mode.	R06A02
Voice Call	Clear "POP" tone when executing audio AT commands during active voice call.	R06A02
FTP	Support to handle response code 125 from FTP server during downloading.	R06A02
NTP	Return time out for <b>AT+QNTP</b> when no response got from NTP server in 60s.	R06A02
GENERAL	Support sleep mode for NAU8814. Fix the power issue when voice call is disconnected.	R06A02
GENERAL	Change default value of <b>AT+QSIDET</b> to 0.	R06A02
GENERAL	Support broadcast URC by <b>AT+QURCCFG="urcport","all"</b> .	R06A02
SMS	Extend <b>AT+CMGR</b> to support read SMS without changing status.	R06A02
GENERAL	Fixed modem crash issue when neighbor cell list is too much to be queried by <b>AT+QENG="neighbourcell"</b> command.	R06A02
GENERAL	Using software decode to detect DTMF tone by default during voice call. DTMF over VOLTE isn't changed.	R06A02
OTHERs	Optimize <b>AT+QCOPS</b> command to show more cells.	R06A03
HTTP	Fixed stuck issue when using <b>AT+QHTTPSTOP</b> to break HTTP connection in rare case.	R06A03
OTHERs	Fixed issue that signal isn't available for first time queried by <b>AT+QRXFTM</b> .	R06A03
OTHERs	Extend <b>AT+QNETINFO</b> to query DRX of GSM/WCDMA/LTE.	R06A03
OTHERs	Optimize <b>AT+QCFG="siminvalirecovery"</b> command to make it work.	R06A03
HTTP	Change default timeout for closing HTTP socket to 5000ms.	R06A03
NETWORK	Optimized AT command <b>AT+QCOPS</b> to restore band capability after executing this command.	R06A04
Audio	Optimized AT command <b>AT+QAUDRDGAIN</b> to solve the issue of audio play failure.	R06A04
NETWORK	Optimized AT command <b>AT+QCOPS</b> to solved issue that executing <b>AT+COPS=0</b> would cause PPP disconnection.	R06A04
NETWORK	Solved the issue that the GSM parameter was incorrect when queried via AT command <b>AT+QCOPS</b> .	R06A04



NETWORK	Extended AT command <b>AT+QCOPS</b> to display multiple band points of a single LTE band in the response result.	R06A04
OTHERs	Included Swisscom MBN.	R06A04
NETWORK	Fixed the issue that MQTT would cause stuck.	R06A04
Sleep	Fixed the issue that when enabled wakeup pin sleep function, the wakeup_in pin could not wakeup the UART port.	R06A04
NETWORK	Fixed the issue that when TCP/UDP connected, the module would run out of memory when under weak signal.	R06A04
MQTT	Optimized AT command could subscribe to five topics at the same time at most.	R06A04
NTP/MQTT/FTP	Optimized NTP/MQTT/FTP to support IPV6 connection.	R06A04
TCP/UDP	Solved the problem that when established multiple TCP connection, it was abnormally to loop QIRD quickly.	R06A04
NETWORK	Fixed stuck issue when APN settings was set for thousands times without stopping.	R06A04
DFOTA	Optimized DFOTA process.	R06A04
NETWORK	Fixed the problem that no service got from CEREG/CGREG/CREG while module was actually registering network after executing <b>AT+COPS=2</b> and <b>AT+COPS=1,2, "plmn"</b> .	R06A04
FTP	Modified data_address range of AT command <b>AT+QFTPCFG=?</b>	R06A04
CMUX	Optimized module stability when enabling CMUX mode then disabling it.	R06A04
Audio	Solved the issue that the ringing tone of the second MT-CALL could not be played on TI3104 codec.	R06A04
NETWORK	Solved the issue that scanning flag was not cleared when executing <b>AT+QCOPS</b> returned error.	R06A04
Data Call	Optimized AT command <b>ATS0=&lt;n&gt;</b> to realize that the module would automatically answer CSD CALL after RING <n> times.	R06A04
WIFI	Optimized AT command <b>AT+QWBCAST</b> and <b>AT+QWMOCH</b> to solve response error.	R06A04
NETWORK	Fixed the issue when switching <b>AT+COPS=2</b> to <b>AT+COPS=0</b> or <b>AT+COPS=1</b> would cause the module unable to register the network before IMSI was ready.	R06A04
OTHERs	Optimized MBIM function.	R06A04
OTHERs	Optimized the module to solve the problem that USB HOST did not support zero packet.	R06A04
Data Call	Solved the problem of no CONNECT report when CSD automatically answered.	R06A04
Audio	Supported new codec nau88c10.	R06A04
FTP	Solved the issue that the serial port could not work normally after executing FTPS command to establish a data channel successfully.	R06A04
Audio	Supported record/play the voice with AMR format.	R06A04
MQTT	Solved the problem that the module could not receive more than 1024 bytes of data sent by the MQTT server.	R06A04

<b>Audio</b>	Optimized AT command <b>AT+QPSND</b> to support AMR format.	R06A04
<b>Voice Call</b>	Fixed the probabilistic issue of no sound during the voice call.	R06A04
<b>NETWORK</b>	Fixed the returned RAT value was incorrect when queried via <b>AT+QNWINFO</b> under GSM.	R06A04
<b>GENERAL</b>	Only searched GSM network by <b>AT+COPS=?</b> when UE was configured as GSM only by <b>AT+QCFG="nwscanmode",1</b> .	R06A04
<b>SMS</b>	Supported IRA characters by GSM 7 bit.	R06A04
<b>OTHERs</b>	Fixed the issue that <b>AT+QCOPS</b> may make AT stuck rarely.	R06A04
<b>HTTP</b>	Fixed frequent error 702 when posting file by <b>AT+QHTTPPOSTFILE</b> .	R06A04
<b>SMS</b>	Fixed the command error when executing <b>AT+CNMA</b> after module receives +CMT message.	R06A04
<b>PPP</b>	Fixed the issue that PPP data connection would not be set up in GSM mode rarely.	R06A04
<b>OTHER</b>	Fixed network status to off status when module was in sleep mode.	R06A04
<b>FTP</b>	Supported to handle response code 125 from FTP server.	R06A04
<b>OTHER</b>	Modified the range of LTE SINR from <b>AT+QENG</b> .	R06A04
<b>TCP/UDP</b>	Fixed issue module could not send data when it was configured as UDP server.	R06A04
<b>DT</b>	Supported emergency call number 000.	R06A04



## 4. Functions

Basic Function								
SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	FILE
Y	Y	N	N	Y	Y	N	N	N
Protocol Function								
QMI	TCP/UDP	PPP	FTP	NITZ	NTP	PING	HTTP	
Y	Y	Y	Y	Y	Y	Y	Y	
Special Function								
SIM Detection								
Y								

### NOTES

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