

EC25-E-FA Release Notes

LTE Standard Module Series

Rev. EC25-E-FA_Firmware_Release_Notes_V0613_20.002.20.002

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1. Preamble

This document provides the Release Notes for EC25-E-FA firmware version **EC25EFAR06A13M4G_20.002.20.002**. It describes major changes compared to EC25-E-FA firmware version **EC25EFAR06A12M4G_20.002.20.002**.

2. Matters Needing Attention

SN	Brief Description
[1]	Multiple PDN is not supported by MBIM.
[2]	In AP mode, due to memory limitations, WIFI supports 10 clients at most.

3. New Features

Item/Category	Brief description	Since
FTP	Added AT+QFTPCFG="restenable" to configure whether the support of REST command was required for FTP server.	R06A13_20.0 02.20.002
HTTP	Added AT command AT+QFWDHTTPCFG to configure features related to HTTP transmission on the AP side.	R06A13_20.0 02.20.002
MQTT	Supported MQTT to receive up to 100K data at a time.	R06A13_20.0 02.20.002
QuecThing	Supported QuecThing.	R06A13_20.0 02.20.002
GENERAL	Added EE MBN.	R06A13_20.0 02.20.002
GENERAL	Added Airtel MBN.	R06A13_20.0 02.20.002
GENERAL	Added AT command AT+QFOTAUPCONFIRM to support HTTP OTA feature.	R06A13_20.0 02.20.002
GENERAL	Added AT command AT+QOTG to switch USB master and slave mode.	R06A13_20.0 02.20.002
GENERAL	Added AT command AT+QGPSCFG="fixfreq" to configure NEMA sentence output in 10Hz.	R06A13_20.0 02.20.002
GENERAL	Added AT commands AT+QCFG="urc/ri/udp" and AT+QCFG="urc/ri/udp_enable" to control the RI of TCP/UDP.	R06A13_20.0 02.20.002
QuecLocator2.0	Added AT command AT+QLBSCFG="contextid" to configure the QuecLocator context ID.	R06A11_01.0 01.01.001

TCP/UDP	Added AT command AT+QISENDX to send data in HEX or text directly.	R06A11_01.0 01.01.001
Voice Call	Added AT command AT+QCFG="call_control" to control MO or MT of voice call.	R06A10_01.0 01.01.001
HTTP	Added AT commands AT+QFWDHTTP and AT+QFWDHTTPREAD to support HTTP transmission on AP side.	R06A09_01.0 01.01.001
AUDIO	Supported to play audio transmitted by PC via USB.	R06A09_01.0 01.01.001
MQTT	Added AT+QMTCFG="onenet" to support to connect the module to OneNET platform through MQTT.	R06A09_01.0 01.01.001
NETWORK	Added the function of preferential registration to the network for the specified band.	R06A09_01.0 01.01.001
TCP SSL	Added AT command AT+QSSLCFG="alpn" to set SSL alpn.	R06A09_01.0 01.01.001
HTTPS	Added AT+QSSLCFG="session_cache" command to optimize HTTPS connection.	R06A09_01.0 01.01.001
TCP/UDP	Expanded the maximum data size of the AT+QISEND command to 10K.	R06A09_01.0 01.01.001
NETWORK	Added jamming detection function.	R06A09_01.0 01.01.001
MMS	Added AT+QMMSCFG="maxpktlen" to support setting MMS sending length.	R06A09_01.0 01.01.001
AUDIO	Supported MP3 audio playback.	R06A09_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="urcport/sms" to query SMS reporting port.	R06A09_01.0 01.01.001
QuecLocator 2.0	Added AT command AT+QLBSEX to enter the cell parameter for positioning.	R06A09_01.0 01.01.001
GENERAL	Added AT+QCFG="lpm/dataind" command to enable wakeup function conditionally.	R06A09_01.0 01.01.001
GENERAL	Enabled SoftSIM feature.	R06A09_01.0 01.01.001
NETWORK	Added AT command to control AT+COPS to scan band, not affecting the band scan of AT+QCFG="nwscanmodeex" .	R06A09_01.0 01.01.001
NETWORK	Added AT command AT+QRRCCONSTATE to query RRC connection state or report RRC connection state.	R06A08_01.0 07.01.007
NETWORK	Added AT command AT+QICSGPEH .	R06A08_01.0 07.01.007
NETWORK	Added AT command AT+QCFG="roamserviceex" to disable network card dialing and voice call in roaming state.	R06A08_01.0 07.01.007
TCP/UDP	Added AT command AT+QIKALIVE .	R06A08_01.0 07.01.007
FILE	Added the feature of certificate encryption.	R06A08_01.0 07.01.007

GENERAL	Added AT command AT+QCFG="urc/ri/restart" .	R06A08_01.0 07.01.007
AUDIO	Added AT command AT+CZESLICEN? .	R06A08_01.0 07.01.007
NETWORK	Added AT command AT+QEGPAPN to query the actual used APN and configured APN.	R06A08_01.0 07.01.007
QuecLocator 2.0	Added AT command AT+QLBS and AT+QLBSCFG to support positioning.	R06A07_01.0 07.01.007
NETWORK	Support to select PLMN manually without SIM.	R06A07_01.0 07.01.007
QuecLocator 2.0	Added AT command AT+QLBSCFG="latOrder" .	R06A07_01.0 07.01.007
GENERAL	Added AT command AT+QCFG="pingdiscard" .	R06A07_01.0 07.01.007
HTTP	Added a new command AT+QHTTPSEND to upload single or multiple files to server via POST (boundary)	R06A06_01.0 06.01.006
TCP SSL	Added command of AT+QSSLSEND=0,0 to query the cache status of the AT+QSSLSEND .	R06A06_01.0 06.01.006
GENERAL	Added subcommand AT+QCFG="frhrcodec" .	R06A06_01.0 06.01.006
NETWORK	Enabled AT command AT+QCFG="urc_cause_support" .	R06A05_01.0 05.01.005
NETWORK	Added AT command AT+QRPM to support RPM feature for DT.	R06A05_01.0 05.01.005
GENERAL	Added ATS12 command to configure the interval for +++ to exit pass-through mode.	R06A05_01.0 05.01.005
MQTT	Added AT command AT+QMTCFG="willex" to configure will_msg.	R06A05_01.0 05.01.005
GENERAL	Supported the feature of GSMR.	R06A05_01.0 05.01.005
AUDIO	Supported the simultaneous voice recording for uplink and downlink by AT command AT+QAUDRD .	R06A05_01.0 05.01.005
GENERAL	Supported the DT Operator.	R06A05_01.0 05.01.005
GENERAL	Added AT command AT+QSIMCHK .	R06A05_01.0 05.01.005
NETWORK	Added AT command AT+QCFG="disable_backoff_lte" .	R06A05_01.0 05.01.005
GENERAL	Added AT command AT+QLEDSTAT to configure and query network status light.	R06A05_01.0 05.01.005
PPP	Added AT command AT+QCFG="ppp/sleep_ri" .	R06A04_01.0 04.01.004
TCP SSL	Added AT command AT+QSSLCFG="clientkey" .	R06A04_01.0 04.01.004

GENERAL	Added AT command AT+QCFG="divctl" .	R06A04_01.0 04.01.004
TCP/UDP	Added AT command AT+QCFG="tcp/windowsize" .	R06A04_01.0 04.01.004
HTTP	Added AT+QHHTTPPUT and AT+QHHTTPPUTFILE commands in HTTP, added AT+QHHTTPCFG="CUSTOM_HEADER" command for customers to define HTTP headers for themselves.	R06A04_01.0 04.01.004
GENERAL	Forbidden to execute AT+CLCK="ai",1,"1234" AT+CLCK="ai",0,"1234" AT+CLCK="ao",0,"1234" AT+CLCK="ao",1,"1234" and allowed to execute AT+CLCK="ai",2 AT+CLCK="ao",2	R06A04_01.0 04.01.004
NETWORK	Added new parameter on AT+QCOPS to query cell id of LTE network.	R06A04_01.0 04.01.004
HTTP	Added AT command AT+QHHTTPCFG="auth" to support to set user name and password to log in http server.	R06A04_01.0 04.01.004
NETWORK	Remained on manual network scan mode if UE failed to register by AT+COPS=1,2,<plmn> .	R06A04_01.0 04.01.004
NETWORK	Added AT+QLTENGBR command to query LTE neighbor cells.	R06A03
NETWORK	Added AT+QCOPSCFG command.	R06A03
MMS	Added AT+QMMSCFG="connecttimeout" to configure timeout for MMS connection.	R06A03
GENERAL	Added AT+QMKFS="vfat" to format SD card.	R06A03
NETWORK	Added AT+QNWLOCK="common/lte" command to lock LTE cell.	R06A03
GENERAL	Added AT+QCFG="ntp" to configure retry count and interval for NTP request.	R06A03
GENERAL	Added AT+QLEDSTAT command to configure cycle for network status light.	R06A03
GENERAL	Added AT+QCFG="bip/auth" to configure authentication type when opening BIP channel.	R06A03
GENERAL	Added AT+QCFG="urc/poweron" to disable/enable URC related to SIM card.	R06A03
GENERAL	Supported RF TUNER feature.	R06A02
GENERAL	Supported to reduce TX POWER for temperature protection.	R06A02
HTTP	Added AT+QHHTTPCFG="windowsize" to configure the size of TCP slide window.	R06A02
HTTP	Added AT+QHHTTPCFG="auth" to set user name and password to log in HTTP server.	R06A02
HTTP	Added AT+QHHTTPCFG="closewaittime" to configure time to force close HTTP socket. Change default time from 120s to 60s.	R06A02
GENERAL	Added AT+QCFG="icf" command to configure serial data bit, stop bit and parity bit.	R06A02

DTMF	Added AT+QAUDCFG="voldetmfcfg" to configure length and volume of DTMF tone.	R06A02
GENERAL	Added AT+QCFG="apn/blocked" to support resend PDP activate request when APN is blocked.	R06A02
GENERAL	Added AT+QCFG="fast/poweroff" command.	R06A01
GENERAL	Added AT+QACDBLOAD command.	R02A09
NETWORK	Added AT+QCOPS command.	R02A08
GENERAL	Added AT+QRXFTM command.	R02A08
AUDIO	Supported Audio over USB feature.	R02A08
GENERAL	Supported FASTBOOT upgrade mode.	R02A08
AUDIO	Supported PCM 16K by AT+QDAI command.	R02A08
GENERAL	Added AT+QEMMINFO to query reject_cause T3402 and T3412 timer value	R02A07
GENERAL	Added the AT command AT+QCFG="urc/ri/pin" to set RI pin.	R02A06
GENERAL	Added the AT command AT+QCFG="vts/async",<n> .	R02A06
GENERAL	Added AT+QCFG="imsreg/iptype",<ver> command to indicate IMS registration by IPV4 or IPV6.	R02A06

4. Improved Features

Item/Category	Brief description	Since
DFOTA	Solved the problem that FOTA upgrade failed when special characters included in the HTTP URL.	R06A13_20.00 2.20.002
HTTP	Solved the problem that the module automatically rebooted when AT+QHTTPPOSTFILE sends a POST request to HTTP(S) server through a file larger than 1M.	R06A13_20.00 2.20.002
HTTP	Solved the problem that AT+QHTTPREAD failed to read HTTP(S) server response information.	R06A13_20.00 2.20.002
HTTP	Solved the problem that AT+QFWDHTTP POST could not transmit body files.	R06A13_20.00 2.20.002
MQTT	Solved the problem that +QMTSTAT:0,65535 may be reported after AT+QMTOPEN execution.	R06A13_20.00 2.20.002
RMNET	Solved the problem that the module could not receive data after setting up a UDP server after NDIS dialing.	R06A13_20.00 2.20.002
TCP SSL	Solved the problem of incorrect data sending status returned by AT+QSSLSEND=<clientID>,0 .	R06A13_20.00 2.20.002

TCP/UDP	Solve the problem of abnormal UDP IPV6 address.	R06A13_20.00 2.20.002
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.)	R06A13_20.00 2.20.002
TCP/UDP	Solved the problem that Modem would discard the TCP data packet sent by the server when window scale was 14.	R06A13_20.00 2.20.002
Voice Call	Solved the problem the third-party could not obtain the calling status during a call.	R06A13_20.00 2.20.002
GENERAL	Updated SE13 TABLE date to 2020/12/21.	R06A13_20.00 2.20.002
GENERAL	Solved the kernel vulnerability CVE-2016-5195.	R06A13_20.00 2.20.002
GENERAL	Modified class 1 APN as telefonica.es for Telefonica.	R06A13_20.00 2.20.002
GENERAL	Solved the problem that GPS did not automatically turn off when the number of positioning times reached.	R06A13_20.00 2.20.002
GENERAL	Solved the problem that the module dropped to 2G caused by call forwarding setting.	R06A13_20.00 2.20.002
GENERAL	Solved the problem that AGPS failed to be turned on after AT+QGPSCFG="fixfreq" set NMEA sentence output frequency.	R06A13_20.00 2.20.002
GENERAL	Turned off the ECT function on IMS.	R06A13_20.00 2.20.002
GENERAL	Modified GEA_1 of Telefonica MBN to 0.	R06A13_20.00 2.20.002
WIFI	Solved the problem that there was no error returned by AT+QWAUTH after setting an out-of-range password.	R06A12_20.00 1.20.001
GENERAL	Solved the problem that Host could not obtain the IP from MBIM if the network only allocated IP without DNS address.	R06A12_20.00 1.20.001
GENERAL	Corrected response format of AT+QWWAN=? .	R06A12_20.00 2.20.002
GENERAL	Solved the problem that Modem could not work normally after executing AT+CFUN=4 during booting.	R06A12_20.00 2.20.002
TCP SSL	Optimized the stability of the module when one TCP SSL was multiplexed at the same time under multiple TCP SSL context.	R06A12_20.00 2.20.002
MQTT	Corrected the sever port range returned by AT+QMTOPEN=? to (1-65535).	R06A12_20.00 2.20.002
TCP/UDP	Solved the problem of memory leak caused by executing AT+QISENDX command.	R06A12_20.00 2.20.002
FTP	Solved the problem that error code 627 returned when data was downloaded discontinuously through FTP.	R06A11_01.00 1.01.001
MQTT	Corrected the response format of AT+QMTUNS=? from +QMTSUB to +QMTUNS.	R06A11_01.00 1.01.001

FTP	Solved the problem that error code 619 may be returned when PUT file via FTP.	R06A11_01.00 1.01.001
HTTP	Solved the problem that after connecting HTTP(S) server successfully with wrong URL and sending GET request through AT+QHTTPGET , executing AT+QHTTPSTOP to cancel HTTP(S) request before URC reported, AT port may not work normally.	R06A11_01.00 1.01.001
HTTP	Solved the problem that an extra +QHTTPURC: "closed" reported when enabling HTTP(S) session closing reporting through AT+QHTTPCFG="closed/ind" .	R06A11_01.00 1.01.001
HTTP	Solved the problem that AT+QHTTPGET may not send the GET request to HTTP(S) server and there may be no timeout occurred.	R06A11_01.00 1.01.001
GENERAL	Improved the Retry and Reboot scheme for Telefonica.	R06A11_01.00 1.01.001
MQTT	Solved the problem that AT+QMTRECV execution may cause AT port to work normally after configuring AT+QMTCFG="recv/mode" to not reporting MQTT messages received from the server through URC.	R06A11_01.00 1.01.001
HTTP	Solved the problem of an error code 702 reported when there was no response from TCP server after HTTP PUT request was sent.	R06A11_01.00 1.01.001
GENERAL	Optimized the CEFS backup and restore mechanism to restore lost files.	R06A11_01.00 1.01.001
GENERAL	Improved the TX feature when switching from other RATs to LTE mode.	R06A11_01.00 1.01.001
GENERAL	Optimized AT+QPOWD=0 to fast shut down the module.	R06A11_01.00 1.01.001
GENERAL	Optimized the ubi read-write partition mounting and exception handling mechanism.	R06A11_01.00 1.01.001
GENERAL	Solved the problem that after the modem rebooted, ECM and RNDIS could not ping the Internet normally.	R06A11_01.00 1.01.001
GENERAL	Optimized the jamming detection algorithm in GSM mode.	R06A11_01.00 1.01.001
MQTT	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.	R06A11_01.00 1.01.001
MQTT	Solved the problem that the AT performance port could not work normally when executing AT+QMTRECV to receive the message after receiving MQTT message in HEX format with AT+QMTCFG="recv/mode" .	R06A10_01.00 1.01.001
GENERAL	Simplified FTM TX function to configure TX power with a fixed value 20dbm.	R06A10_01.00 1.01.001
FTP	Optimized the process of compatibility with various server connections and interactions.	R06A10_01.00 1.01.001
HTTP	Solved the problem that AT/UART port could not work normally when AT+QHTTPSTOP was executed after HTTP request expiration.	R06A10_01.00 1.01.001

GENERAL	Extended AT+QCFG="dhcpcpftr" command to determine whether to filter packets according to DHCP destination addresses.	R06A10_01.00 1.01.001
GENERAL	Solved the problem that the sleep_ri pin did not jittered when receiving PPP data in the sleep state (AT+QCFG="ppp/sleep_ri" did not take effect).	R06A10_01.00 1.01.001
SMS	Solved the problem that AT+QCFG="urcport/sms" could not set SMS reporting port to debug port.	R06A10_01.00 1.01.001
TCP/UDP	Solved the problem that the number of actually connected clients did not match the set clients when the module was used as a TCP server.	R06A10_01.00 1.01.001
GENERAL	Solved the problem that after QBI service closed, MBIM could not work normally when it was repeatedly opened or closed.	R06A10_01.00 1.01.001
GENERAL	Solved the problem that VF_Germany MBN could not be activated automatically and PLMN was abnormal.	R06A09_01.00 1.01.001
FILE	Solved the problem of some data loss when uploading files using the FILE related command through the UART debug port after enabled dual serial port function.	R06A09_01.00 1.01.001
SMS	Fixed the problem of insufficient SMS storage.	R06A09_01.00 1.01.001
GENERAL	Disable PDC MBN load feature.	R06A09_01.00 1.01.001
AUDIO	Solved the problem that the codec parameter restored to the default value after executing audio-related command during a call.	R06A09_01.00 1.01.001
MQTT	Improved module stability when MQTT receives a large number of subscribed topics.	R06A09_01.00 1.01.001
NETWORK	Optimized the AT command AT+QCFG="roamserviceex" to solve the problem of failed to disable voice call and dial up internet access in roaming mode.	R06A09_01.00 1.01.001
GENERAL	Optimized AT+QFWDHTTP to set the maximum URL length to 1024 bytes, and added timeout setting and return HTTP response code.	R06A09_01.00 1.01.001
MQTT	Improved module stability when using AT+QMTPUBEX related to MQTT to publish data larger than 1500 bytes.	R06A09_01.00 1.01.001
FILE	Removed redundant Q files in SFS path.	R06A09_01.00 1.01.001
SIMCARD	Enabled FEATURE_MMGSDI_IGNORE_INIT_ERRO configuration to identify invalid SIM card.	R06A09_01.00 1.01.001
GENERAL	Optimized Socket connection.	R06A09_01.00 1.01.001
WIFI	The following problems were resolved: 1. the return values of AT+QWIFICFG="ssidhide" and AT+QWAUTH=? was incorrect; 2. The range of parameter <channel> for the AT+QWIFICFG=? and AT+QWMOCH? is incorrect;	R06A09_01.00 1.01.001

	3. The parameter <macacl> cannot be set and queried with AT+QWIFICFG .	
GENERAL	Solved the problem that the previous URC was outputted in the next RI signal transition when receiving the continuous URC quickly.	R06A09_01.00 1.01.001
TCP SSL	Solved the problem that when the module received a large amount of data in SSL mode and read the data with AT+QSSLRECV , URC was returned before finishing the data read.	R06A09_01.00 1.01.001
TCP SSL	Solved the problem that the format of the parameter <op> of dtls and the parameter <version> of dtlsversion were incorrect returned by AT+QSSLCFG=? .	R06A09_01.00 1.01.001
MQTT	Solved the problem that after setting willmessage with a length of 256 bytes through AT+QMTCFG="WILLEX" , willtopic will also be returned after willmessage in URC.	R06A09_01.00 1.01.001
MQTT	Corrected the return format of AT+QMTCFG=? .	R06A09_01.00 1.01.001
NETWORK	Optimized AT+QCFG="fast_dormancy" to support fast dormancy mode 3.	R06A09_01.00 1.01.001
QuecLocator 2.0	Solved the problem that the error code returned incorrectly after executing AT+QLBS .	R06A09_01.00 1.01.001
TCP SSL	Ignored the verification for multi-level certificate chains by default in the embedded SSL protocol.	R06A09_01.00 1.01.001
SMS	Solved the problem that the current operator's SMS center number could not display after enabling the SIM card hot-plugging function.	R06A09_01.00 1.01.001
FTP	Solved the problem that the module could not work properly when executing AT+CFUN during FTP upload and download processes.	R06A09_01.00 1.01.001
Voice Call	Optimized the three-party call function.	R06A09_01.00 1.01.001
HTTP	Solved the problem that the module failed to work properly after asking an HTTP request with wrong URL.	R06A09_01.00 1.01.001
NETWORK	Optimized Telecom LTE ONLY IoT card network registration.	R06A09_01.00 1.01.001
FTP	Supported multiple server response parsing in FTP mode.	R06A09_01.00 1.01.001
GENERAL	Modified uar1 in the returned by the AT+QFWD CFG=? command to uart1.	R06A09_01.00 1.01.001
NETWORK	Increased the maximum length of APN from 62 to 65.	R06A09_01.00 1.01.001
MMS	Solve the problem that MMS proxy addresses starting with 0 could be set with AT+QMMSCFG="proxy" .	R06A09_01.00 1.01.001
FTP	Solved the problem that the module could not work normally after executing AT+CFUN=0 on other AT ports during FTP upload or download.	R06A09_01.00 1.01.001

GENERAL	Solved the problem that there was no "uac_fs" and "uac_music" returned after executing AT+QAUDCFG=? .	R06A09_01.00 1.01.001
TCP/UDP	Solved the problem that after activating PDP, the AT port may not work normally after executing AT+QIDEACT command immediately without response.	R06A09_01.00 1.01.001
QuecLocator 2.0	Solved the problem that the default server port (80) could not be obtained by AT+QLBSCFG? .	R06A09_01.00 1.01.001
AUDIO	Updated ACDB file to fix LTE noise problem in telstra certification.	R06A09_01.00 1.01.001
GENERAL	Solved the problem that the IPV6 domain name address resolved by AT+QIDNSGIP was incorrect.	R06A09_01.00 1.01.001
LowPower	Solved the problem that the main serial port and modem could not sleep after executing AT+QCFG="wakepin/level",1,1 .	R06A09_01.00 1.01.001
GENERAL	Update Bouygues_France_VoLTE MBN version to 202004151.	R06A09_01.00 1.01.001
DFOTA	Solved the problem that the USB port could not configure due to the modification of the partition table during the DFOTA upgrade.	R06A09_01.00 1.01.001
NITZ	Solved the problem that the local time queried by AT+CCLK? was inconsistent with the local time synchronized by AT+CTZU=3 from the network.	R06A09_01.00 1.01.001
GENERAL	Solved the problem of USB disconnection.	R06A09_01.00 1.01.001
NETWORK	Optimized Telecom LTE ONLY IoT card network registration (taking effect immediately).	R06A09_01.00 1.01.001
DTMF	Modified the source file for DTMF audio.	R06A09_01.00 1.01.001
DTMF	Optimized DTMF playback duration and DTMF tone interval control.	R06A09_01.00 1.01.001
GENERAL	Supported customizing incoming ringtones by customers.	R06A09_01.00 1.01.001
GENERAL	Solved the problem of no sleep_ri jitter after receiving PPP data.	R06A09_01.00 1.01.001
GENERAL	Simplified FTM TX function.	R06A09_01.00 1.01.001
NETWORK	Improved China Telecom B5 to search frequency 2452 in priority under LTE.	R06A09_01.00 1.01.001
GENERAL	Not reported the status of PIN2 by default in MBIM mode.	R06A09_01.00 1.01.001
WIFI	Solved the problem that RNDIS0 could not connect to the Internet through STA.	R06A09_01.00 1.01.001
GENERAL	Solved the problem that in CMUX mode, AT+QURCCFG="URCPORT","all" sets all ports to output URCs, but URC could not output from USB AT port properly.	R06A09_01.00 1.01.001

HTTP	Optimized the feature of HTTP after enabling rspout/auto.	R06A08_01.00 7.01.007
AUDIO	Solved the problem that the downlink sound would be recorded while the uplink sound was supposed to be recorded in a call.	R06A08_01.00 7.01.007
AUDIO	Optimized audio card service to solve the problem of abnormal exiting.	R06A08_01.00 7.01.007
GENERAL	Optimized the AT command AT+QDIAGPORT .	R06A08_01.00 7.01.007
HTTP	Solved the problem that the obtained URL was the URL of HTTPS type unexpectedly while the HTTP type URL was entered under IPv6 address.	R06A08_01.00 7.01.007
GENERAL	Solved the probabilistic problem of USB disconnection when enabling auto suspend and resume.	R06A08_01.00 7.01.007
MQTT	Solved the problem that the extra characteristics would be outputted at the end of the data string when executing command AT+QMTCFG="willex" to read data.	R06A08_01.00 7.01.007
GENERAL	Solved the problem that the extra USB port would be loaded when configuring RNDIS only via AT+QCFG="usbcfg" .	R06A08_01.00 7.01.007
WIFI	Unified WIFI firmware packing path.	R06A08_01.00 7.01.007
FTP	Improved FTP feature under IPv6.	R06A08_01.00 7.01.007
HTTP	Improved HTTP feature under IPv6.	R06A08_01.00 7.01.007
GNSS	Solved the problem that the positioning mode always be 2D after positioning.	R06A08_01.00 7.01.007
UAC	Solved the problem that no sound in a UAC call.	R06A08_01.00 7.01.007
AUDIO	Optimized the commands AT+QAUDRDGAIN? and AT+QAUDPLAYGAIN? .	R06A08_01.00 7.01.007
DFOTA	Added RSA public key in recoveryfs to check the signature of differential packets during DFOTA upgrade, it will continue to upgrade if pass, otherwise 502 error will be reported.	R06A08_01.00 7.01.007
SMS	Solved the problem that the SMS center address would not be reported under GSM network.	R06A08_01.00 7.01.007
Voice Call	Enabled the DSCI reporting of calling an emergency number without SIM card.	R06A08_01.00 7.01.007
GENERAL	Corrected the valid range of parameter <temp_threshold> of AT command AT+QCFG="thermal/txpwrImt" .	R06A08_01.00 7.01.007
GENERAL	Optimized UE identity reporting process.	R06A07_01.00 7.01.007
DFOTA	Supported to set baud rate in the process of DFOTA upgrading.	R06A07_01.00 7.01.007

TCP/UDP	Deleted the extra bytes of the data length when TCPIP reporting URC.	R06A06_01.00 6.01.006
NETWORK	Solved the problem that when executing AT+QCFG="nwscanmode" to fix 2G network in the case of auto registering network, no CREG reporting and no cell information of CGREG reporting after setting AT+CREG=2 , AT+CGREG=2 and AT+CREG=2 .	R06A06_01.00 6.01.006
NETWORK	Optimized AT command AT+QCFG="disable_backoff_lte"	R06A06_01.00 6.01.006
TCPSSL	Extended the command AT+QSSLCFG="cacertex" to add multiple CA certificates.	R06A06_01.00 6.01.006
TCP/UDP	Solved the problem that AT+QISEND could not query the bytes ACKED by TCP server when TCP connection was in Half-Close status.	R06A05_01.00 5.01.005
Voice Call	Solved the small probability problem of no sound during the voice call.	R06A05_01.00 5.01.005
AUDIO	Solved the problem that AT command played AMR format has noise.	R06A05_01.00 5.01.005
NETWORK	Added cell blacklist function when RRC access failure reached a certain condition.	R06A05_01.00 5.01.005
GENERAL	Optimized parameter partition restore mechanism.	R06A05_01.00 5.01.005
GENERAL	Optimized AT command AT+QGPSSUPLCA to solve the return error.	R06A05_01.00 5.01.005
NETWORK	Solved the problem that the returned RAT value was incorrect when queried via AT command AT+QNWINFO .	R06A05_01.00 5.01.005
GENERAL	Solved the problem that no response returned or URC for manufacturer command when executed AT+CMEE=0 .	R06A05_01.00 5.01.005
GENERAL	Supported to update operator MBN after upgrading module FW.	R06A05_01.00 5.01.005
NTP	Solved the problem of format error when executed AT command AT+QCFG="NTP" .	R06A05_01.00 5.01.005
MMS	Solved the problem that when port set by AT+QMMSCFG="proxy" was out of range, would unexpectedly return OK and take effect, not fail.	R06A05_01.00 5.01.005
MMS	Solved the problem that no error report when the parameter of AT+QMMSSEND was out of range.	R06A05_01.00 5.01.005
MMS	Solved the problem that the title setting to null can also be successful not failed.	R06A05_01.00 5.01.005
MMS	Improved module stability when executing AT+QMMSEDIT=5,1 .	R06A05_01.00 5.01.005
MMS	Solved the problem that no error report when the parameter of AT+QMMSCFG="sendparam" was missing.	R06A05_01.00 5.01.005

GENERAL	Solved the problem of returned format error when executed AT command AT+CCLK? .	R06A05_01.00 5.01.005
GENERAL	Solved the problem that when set the parameter of AT+CTZU to illegal value 2, it would be set and take effect unexpectedly, not fail.	R06A05_01.00 5.01.005
MMS	Solved the problem that the mailbox address or the phone number with same recipient would be added repeatedly.	R06A05_01.00 5.01.005
GENERAL	Optimized RF Factory Test feature.	R06A05_01.00 5.01.005
TCP/UDP	Supported to report the data length also when TCPIP reporting URC.	R06A05_01.00 5.01.005
TCP/UDP	Optimized the module stability when receiving more than 751 bytes under TCP hex mode.	R06A05_01.00 5.01.005
TCP/UDP	Optimized the process when sending UDP data on different destination port.	R06A05_01.00 5.01.005
NETWORK	Solved the problem of no LTE related response returned when executing AT+QCOPS=7,0 or AT+QCOPS=4,0 .	R06A05_01.00 5.01.005
GENERAL	Supported to display USSD string of UCS2 7Bit.	R06A05_01.00 5.01.005
NETWORK	Optimized AT command AT+QCOPS to restore band capability after executing this command.	R06A04_01.00 4.01.004
AUDIO	Optimized AT command AT+QAUDRDGAIN to solve the issue of audio play failure.	R06A04_01.00 4.01.004
NETWORK	Optimized AT command AT+QCOPS to solved issue that executing AT+COPS=0 would cause PPP disconnection.	R06A04_01.00 4.01.004
NETWORK	Solved the issue that the GSM parameter was incorrect when queried via AT command AT+QCOPS .	R06A04_01.00 4.01.004
NETWORK	Extended AT command AT+QCOPS to display multiple band points of a single LTE band in the response result.	R06A04_01.00 4.01.004
GENERAL	Included Swisscom MBN.	R06A04_01.00 4.01.004
MQTT	Fixed the issue that MQTT would cause stuck.	R06A04_01.00 4.01.004
GENERAL	Fixed the issue that when enabled wakeup pin sleep function, the wakeup_in pin could not wakeup the UART port.	R06A04_01.00 4.01.004
NETWORK	Fixed the issue that when TCP/UDP connected, the module would run out of memory when under weak signal.	R06A04_01.00 4.01.004
MQTT	Optimized AT command could subscribe to five topics at the same time at most.	R06A04_01.00 4.01.004
GENERAL	Optimized NTP/MQTT/FTP to support IPV6 connection.	R06A04_01.00 4.01.004
TCP/UDP	Solved the problem that when established multiple TCP connection, it was abnormally to loop QIRD quickly.	R06A04_01.00 4.01.004
NETWORK	Fixed stuck issue when APN settings was set for thousands times without stopping.	R06A04_01.00 4.01.004

DFOTA	Optimized DFOTA process.	R06A04_01.00 4.01.004
NTEWORK	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>" .	R06A04_01.00 4.01.004
FTP	Modified data_address range of AT command AT+QFTP_CFG=?	R06A04_01.00 4.01.004
AUDIO	Solved the issue that the ringing tone of the second MT-CALL could not be played on TI3104 codec.	R06A04_01.00 4.01.004
NETWORK	Solved the issue that scanning flag was not cleared when executing AT+QCOPS returned error.	R06A04_01.00 4.01.004
GENERAL	Optimized AT command AT+QWBCAST and AT+QWMOCH to solve response error.	R06A04_01.00 4.01.004
NETWORK	Fixed the issue when switching AT+COPS=2 to AT+COPS=0 or AT+COPS=1 would cause the module unable to register the network before IMSI was ready.	R06A04_01.00 4.01.004
GENERAL	Optimized MBIM function.	R06A04_01.00 4.01.004
GENERAL	Optimized the module to solve the problem that USB HOST did not support zero packet.	R06A04_01.00 4.01.004
AUDIO	Supported new codec nau88c10.	R06A04_01.00 4.01.004
FTP	Solved the issue that the serial port could not work normally after executing FTPS command to establish a data channel successfully.	R06A04_01.00 4.01.004
AUDIO	Supported record/play the voice with AMR format.	R06A04_01.00 4.01.004
MQTT	Solved the problem that the module could not receive more than 1024 bytes of data sent by the MQTT server.	R06A04_01.00 4.01.004
AUDIO	Optimized AT command AT+QPSND to support AMR format.	R06A04_01.00 4.01.004
Voice Call	Fixed the probabilistic issue of no sound during the voice call.	R06A04_01.00 4.01.004
NETWORK	Fixed the returned RAT value was incorrect when queried via AT+QNWINFO under GSM.	R06A04_01.00 4.01.004
NETWORK	Only searched GSM network by AT+COPS=? when UE was configured as GSM only by AT+QCFG="nwscanmode",1 .	R06A04_01.00 4.01.004
SMS	Supported IRA characters by GSM 7 bit.	R06A04_01.00 4.01.004
NETWORK	Fixed the issue that AT+QCOPS may make AT stuck rarely.	R06A04_01.00 4.01.004
HTTP	Fixed frequent error 702 when posting file by AT+QHTTPPOSTFILE .	R06A04_01.00 4.01.004
SMS	Fixed the command error when executing AT+CNMA after module receives +CMT message.	R06A04_01.00 4.01.004

PPP	Fixed the issue that PPP data connection would not be set up in GSM mode rarely.	R06A04_01.00 4.01.004
GENERAL	Fixed network status to off status when module was in sleep mode.	R06A04_01.00 4.01.004
GENERAL	Modified the range of LTE SINR from AT+QENG .	R06A04_01.00 4.01.004
TCP/UDP	Fixed issue module could not send data when it was configured as UDP server.	R06A04_01.00 4.01.004
GENERAL	Supported emergency call number 000.	R06A04_01.00 4.01.004
NETWORK	Optimized AT+QCOPS command to show more cells.	R06A03
HTTP	Fixed stuck issue when using AT+QHTTPSTOP to break HTTP connection in rare case.	R06A03
GENERAL	Extended AT+QNETINFO to query DRX of GSM/WCDMA/LTE.	R06A03
GENERAL	Optimized AT+QCFG="siminvalidrecovery" command to make it work.	R06A03
HTTP	Changed default timeout for closing HTTP socket to 5000ms.	R06A03
GENERAL	Support to configure numeric code or string code by AT+CEER . Default is numeric.	R06A02
GENERAL	Fixed issue that +CBM could not be reported when DTR is pulled down.	R06A02
Voice Call	Cleared 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 MINIPCI type.	R06A02
HTTP	Fixed frequent HTTP timeout error when posting file without HTTP header.	R06A02
SMS	Supported to execute AT+CNMA after receiving +CMT message when <mode> of AT+CNMI is set to 1 or 2 and type of message service is set as 1 by AT+CSMS .	R06A02
NETWORK	Extend AT+QCOPS 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
LowPower	Fixed net_status to off status when module goes in sleep mode.	R06A02
Voice Call	Cleared "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 AT+QNTP when no response got from NTP server in 60s.	R06A02

GENERAL	Changed default value of AT+QSIDET to 0.	R06A02
GENERAL	Supported broadcast URC by AT+QURCCFG="urcport","all" .	R06A02
SMS	Extended AT+CMGR to support read SMS without changing status.	R06A02
NETWORK	Fixed modem crash issue when neighbor cell list is too much to be queried by AT+QENG="neighbourcell" command.	R06A02
DTMF	Using software decode to detect DTMF tone by default during voice call. DTMF over VOLTE is not changed.	R06A02
Voice Call	Fixed the issue that there will be no voice when setting audio parameters immediately after ATD command.	R06A01
Voice Call	Added "NO CARRIER" when incoming call is turned off on automatic answering mode.	R02A08
NETWORK	Modified the format of SMTP header to support gmail.	R02A07
GENERAL	Fixed the issue that SD file could not be sent by AT+QHTTPPOST when its length is less than 2048.	R02A07
GENERAL	Fixed the crash issue when module upload file of 10M size from serial port by AT+QFTPPUT .	R02A07
GENERAL	Fixed the issue that URC could not output after AT+QFUPL .	R02A07
GENERAL	Fixed the bug that module still in sleep mode when DTR in low state.	R02A06
TCP/UDP	Fixed the bug that the module could not register to network with AT+CFUN=0/1 command after TCP connection setup.	R02A06
GENERAL	Fixed the bug that AT+CBC command return error while no SIM card is inserted.	R02A06
TCP/UDP	Fixed the bug that AT+QIRD could not read the specified data with the setting length.	R02A06
GENERAL	Fixed the bug that the IOT card of Telecommunications could not 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 AT+QENG="servingcell" and AT+QENG="neighbourcell" could not get the cell and neighbor cell information in AUTO mode without SIM card.	R02A06
NETWORK	Modified 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 AT+QPPPDROP .	R02A05
GENERAL	Fixed the bug AT+QADC & AT+QADCTEMP execute error.	R02A05

AUDIO	Improved the default audio EEC value	R02A04
FTP	Fixed the bug that executing the AT+QFTPPUT command to upload from UFS has opened the file, is not an error and to upload, expected return is ERROR.	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 added the AT command AT+QCFG="codec/powsave" 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	Fix the bug AT+QEEC configuration could change the value of AT+QAUDMOD .	R02A04
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 AT+QISEND query results error.	R02A03
FTP	Fixed the bug that command AT+QFTPSTAT return the error status when data uploading.	R02A03
FTP	Fixed the bug that the AT+QFTPPUT parameter is set to 2, the implementation of successful and be able to upload files, expected return is ERROR.	R02A03
FTP	Fixed the bug that executing the AT+QFTPPUT command to upload data length is set to 0, is not an error and to upload, expected return is ERROR.	R02A03
FTP	Fixed the bug that executing the AT+QFTPLIST command configuration is empty or Chinese characters or file does not exist, to list the results, expected return is ERROR.	R02A03
Voice Call	Fixed the bug in the TCP transparent mode, when receiving calls ATA receive the error, expect the ATA to receive calls.	R02A03

5. Known Issues

Item/Category	Brief Description
/	/

6. Functions

Basic Function								
SMS	Voice Call	Data Call	USSD	PHB	CMUX	FILE ¹⁾	FAX	STK
Y	Y	N	N	Y	Y	Y	N	N
Protocol Function								
QMI	TCP/UDP	PPP	FTP	NITZ	NTP	PING	HTTP	MMS ²⁾
Y	Y	Y	Y	Y	Y	Y	Y	Y
MQTT	TCP SSL	SMTP	SMTPS	HTTPS				
Y	Y	Y	Y	Y				
Special Function								
SIM Detection	UAC	DFOTA	DTMF ³⁾	Dual UART	TTS	Quec Locator 2.0 ⁴⁾	SD	WIFI
Y	Y	Y	Y	Y	Y	Y	Y	Y
LowPower	RMNET	ECM	RNDIS	MBIM	DSSS	QuecThing		
Y	Y	Y	Y	Y	Y	Y		

NOTES

- Y means the firmware supports this function.
- N means the firmware does not support this function.
- ¹⁾Support RAM FILE only.
- ²⁾Support MMS sending only.
- ³⁾Supports DTMF decoding only.
- ⁴⁾QuecLocator2.0 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.
- Verification Environment is shown below. For more details, please contact Quectel technical support.
For Windows,
USB Driver: Quectel_LTE&5G_Windows_USB_Driver_V2.1~V2.2
Qflash Tool: QFlash_ V4.20~V5.2

For Linux,
QMI_WWAN Driver: Quectel_Linux&Android_QMI_WWAN_Driver_V1.2.0.14

GobiNet Driver: Quectel_Linux&Android_GobiNet_Driver_V1.6.2.9

Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.0.15

Qflash Tool: LTE<E-A_QFlash_Linux&Android_V2.0

USB Driver: Quectel_LTE&5G_Linux_USB_Driver_V1.0

QLog Tool: Quectel_QLog_Linux&Android_V1.4.10

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