EG95-E-FB Release Notes

LTE Standard Module Series

Rev. EG95-E-FB_Firmware_Release_Notes_V0607.01.001.01.001

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Quectel Wireless Solutions Co., Ltd.
Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai 200233, China
Tel: +86 21 5108 6236
Email: info@quectel.com

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1. Preamble

This document provides the Release Notes for EG95-E-FB firmware version **EG95EFBR06A07M4G_01.001.01.001**. It describes major changes compared to EG95-E-FB firmware version **EG95EFBR06A06M4G_01.006.01.006**. For a detailed listing of all changes, refer to the EG9X AT Command Set.

2. Matters Needing Attention

SN	Brief Description
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3. New Features

Item/Category	Brief description	Since
GENERAL	Added AT command **AT+QICSGPEH** to configure PDP context.	R06A07_01.001.01.001
NETWORK	Added AT command **AT+QCFG="roamserviceex"** to disable network card dialing and voice call in roaming state.	R06A07_01.001.01.001
TCP/UDP	Added AT command **AT+QIKALIVE** to support TCP KEEP ALIVE function.	R06A07_01.001.01.001
GENERAL	Added QuecThing function.	R06A07_01.001.01.001
AUDIO	Added ALC5660 codec.	R06A07_01.001.01.001
FILE	Added the feature of certificate encryption.	R06A07_01.001.01.001
GENERAL	Added AT command **AT+QCFG="urc/ri/restart"** to configure URC RI behavior.	R06A07_01.001.01.001
NETWORK	Added AT command **AT+QEGPAPN** to query the actual used APN and configured APN.	R06A07_01.001.01.001
AUDIO	Added AT command **AT+CZESLICEN?**.	R06A07_01.001.01.001
TCP SSL	Added AT command **AT+QSSLRECV** to read the remaining data.	R06A07_01.001.01.001
HTTP	Added AT commands **AT+QFWDHTTP** and **AT+QFWDHTTPREAD** to support HTTP transmission on AP side.	R06A07_01.001.01.001

AUDIO	Supported to play audio transmitted by PC via USB.	R06A07_01.0 01.01.001
MQTT	Added **AT+QMTCFG="onenet"** to support to connect the module to OneNET platform through MQTT.	R06A07_01.0 01.01.001
NETWORK	Added the function of preferential registration to the network for the specified band.	R06A07_01.0 01.01.001
TCP SSL	Added AT command **AT+QSSLCFG="alpn"** to set SSL alpn.	R06A07_01.0 01.01.001
HTTPS	Added **AT+QSSLCFG="session_cache"** command to optimize HTTPS connection.	R06A07_01.0 01.01.001
TCP/UDP	Expanded the maximum data size of the **AT+QISEND** command to 10K.	R06A07_01.0 01.01.001
GENERAL	Added jamming detection function.	R06A07_01.0 01.01.001
MMS	Added AT command **AT+QMMSCFG="maxpktlen"** to support setting MMS sending length.	R06A07_01.0 01.01.001
GENERAL	Added AT command **AT+QCFG="mainuart"** to control main UART and switch GPIO function.	R06A07_01.0 01.01.001
AUDIO	Supported MP3 audio playback.	R06A07_01.0 01.01.001
GENERAL	Added AT command **AT+QCFG="urcport/sms"** to get SMS reporting port.	R06A07_01.0 01.01.001
QuecLocator 2.0	Added AT command **AT+QLBSEX** to enter the cell parameter for positioning.	R06A07_01.0 01.01.001
GENERAL	Added **AT+QCFG="lpm/dataind"** command to detect any combination of SCLK, DTR, and USB to enable wakeup function conditionally.	R06A07_01.0 01.01.001
GENERAL	Enabled SoftSIM feature.	R06A07_01.0 01.01.001
Voice Call	Added AT command **AT+QCFG="call_control"** to control MO or MT of voice call.	R06A07_01.0 01.01.001
QuecLocator2.0	Added AT command **AT+QLBSCFG="contextid"** to configure the QuecLocator context ID.	R06A07_01.0 01.01.001
TCP/UDP	Added AT command **AT+QISENDX** to send data in HEX or text directly.	R06A07_01.0 01.01.001
GENERAL	Added RF tuner configuration.	R06A07_01.0 01.01.001
GENERAL	Added AT command **AT+QCFG="frhrcodec"** to control the EFR/HR/FR voice coding method of GSM.	R06A06_01.0 06.01.006
GENERAL	Added AT command **AT+QCFG="pingdiscard"** to configure whether to discard the ICMP ECHO REQ message that another peer sent to module.	R06A06_01.0 06.01.006
AUDIO	Supported the simultaneous voice recording for uplink and downlink by AT command **AT+QAUDRD**.	R06A06_01.0 06.01.006

AUDIO	Added AT command **AT+QWDTMF**.	R06A06_01.0 06.01.006
SMTP	Added AT command **AT+QSMTPCFG="bodyoriginal"** to control the email content outputted as original without transcoding.	R06A06_01.0 06.01.006
GENERAL	Supported the feature of GSMR.	R06A06_01.0 06.01.006
TCP/UDP	Added command **AT+QCFG="TCP/SendMode"** to control the report pattern of TCP sending data successfully.	R06A06_01.0 06.01.006
HTTP	Added AT command **AT+QHTTPSEND** and **AT+QHTTPCFGEX** to upload single or multiple files to server via POST (boundary).	R06A06_01.0 06.01.006
TCP SSL	Added AT command **AT+QSSLSEND=0,0** to query the cache status of the **AT+QSSLSEND**.	R06A06_01.0 06.01.006
QuecLocator 2.0	Added AT command **AT+QLBS** and **AT+QLBSCFG**.	R06A06_01.0 06.01.006
NETWORK	Supported to lock PLMN without inserting the SIM card.	R06A06_01.0 06.01.006
GENERAL	Added DTLS function.	R06A06_01.0 06.01.006
GENERAL	Added AT command **AT+QCFG="netmaskset"**.	R06A06_01.0 06.01.006
GENERAL	Added AT Command **AT+QSAPCONNECT** and **AT+QSAPREQUEST**.	R06A06_01.0 06.01.006
QuecLocator 2.0	Added AT command **AT+QLBSCFG="latOrder"**.	R06A06_01.0 06.01.006
TCP/UDP	Added AT command **AT+QCFG="tcp/windowsize"**.	R06A06_01.0 06.01.006
AUDIO	Supported new codec nau88c10.	R06A06_01.0 06.01.006
HTTP	Added AT commands as follows: **AT+QHTTPPUT**, **AT+QHTTPPUTFILE**, **AT+QHTTPPOST**, **AT+QHTTPPOSTFILE**, **AT+QHTTPGET**, **AT+QHTTPCFG="CUSTOM_HEADER"**.	R06A06_01.0 06.01.006
GENERAL	Added new number 000 to emergency number list without sim card and added AT command **AT+QECCNUM=4**.	R06A06_01.0 06.01.006
AUDIO	Supported record/play the voice with AMR format.	R06A06_01.0 06.01.006
AUDIO	Added AT command **AT+QPSND** to support AMR format.	R06A06_01.0 06.01.006
SIMCARD	Added AT command **AT+QCFG="sim/poll_time_delay"**.	R06A06_01.0 06.01.006
GENERAL	Added ADB and UART security features.	R06A06_01.0 06.01.006
GENERAL	Added AT command **AT+QCNUM**.	R06A05_01.0 05.01.005
GENERAL	Added AT command **AT+QCFG="URC/POWERON"**.	R06A05_01.0

		05.01.005
SIMCARD	Added AT command **AT+QCFG="bip/auth"**.	R06A05_01.0 05.01.005
TCP/UDP	Added AT command **AT+QICFG="recv/buffersize",<recv_buffersize>**.	R06A05_01.0 05.01.005
NETWORK	Added AT command **AT+QNWLOCK="common/lte"[,<action>[,<EARFCN>,<PCI>[,<status>]]]**.	R06A05_01.0 05.01.005
NTP	Added AT command **AT+QCFG="ntp",<cnt>,<interval>**.	R06A05_01.0 05.01.005
GENERAL	Added AT command **AT+QMBNCFG="list_all"**.	R06A05_01.0 05.01.005
NETWORK	Added AT command **AT+QCFG="cops_no_mode_change"**.	R06A05_01.0 05.01.005
MMS	Added AT command **AT+QMMSCFG="connecttimeout"[,<connect_timeout>]**.	R06A05_01.0 05.01.005
TCP SSL	Added AT command **AT+QSSLCFG="closetimemode",<ssl_ctx_id>[,<closetime_mode>]**.	R06A05_01.0 05.01.005
NETWORK	Added AT command **AT+QLTENGBR**.	R06A05_01.0 05.01.005
TCP SSL	Added below AT commands: **AT+QSSLCFG="ignoremulticertchainverify",<ssl_ctx_id>[,<ignore_multicertchain_verify>]** **AT+QSSLCFG="ignoreinvalidcertsign",<ssl_ctx_id>[,<ignore_invalidcertsign>]**	R06A05_01.0 05.01.005
PPP	Added subcommand **AT+QCFG="ppp/sleep_ri"**.	R06A05_01.0 05.01.005
TCP SSL	Added new AT command **AT+QSSLCFG="clientkey",<sslctxid>[,<clientkeypath>[,<clientkeypwd>]]**.	R06A05_01.0 05.01.005
GENERAL	Added subcommand **AT+QCFG="divctl"**.	R06A05_01.0 05.01.005
NETWORK	Added new parameter on **AT+QCOPS** to query cell id of LTE network.	R06A04
HTTP	Added **AT+QHTTPCFG="auth"** command to support to set user name and password to log in HTTP server.	R06A04
GENERAL	Added **AT+QCFG="w_disable_pin"** to configure whether w_disable pin is used to indicate status of RF PA. The function is disabled by default.	R06A04
GENERAL	Support CSD call.	R06A03
GENERAL	Support unsolicited +CLIP message to indicate the number of incoming CSD CALL.	R06A03

4. Improved Features

Item/Category	Brief description	Since
GENERAL	Solved the problem that the positioning mode always be 2D after positioning.	R06A07_01.00 1.01.001
GENERAL	Enabled MultiMBN feature.	R06A07_01.00 1.01.001
UAC	Solved the problem of no sound in a UAC call.	R06A07_01.00 1.01.001
TTS	Solved the problem that an error would be occurred when executing the AT command to send TTS.	R06A07_01.00 1.01.001
MQTT	Improved the module stability when the MQTT server sending big data rapidly.	R06A07_01.00 1.01.001
AUDIO	Optimized the commands **AT+QAUDRDGAIN?** and **AT+QAUDPLAYGAIN?**.	R06A07_01.00 1.01.001
HTTP	Solved the problem that the file pointer could not be closed normally when sending files with **AT+QHTTPSEND**.	R06A07_01.00 1.01.001
TCP SSL	Optimized the SSL session reuse logic.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the NMEA port did not output GPS data.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that USB port was disconnected as the USB resume time was too long.	R06A07_01.00 1.01.001
GENERAL	Improved the feature of USSD.	R06A07_01.00 1.01.001
GENERAL	Corrected the valid range of parameter <temp_threshold> of AT command **AT+QCFG="thermal/txpwrlmt"**.	R06A07_01.00 1.01.001
AUDIO	Solved the problem that the downlink sound would be recorded while the uplink sound was supposed to be recorded in a call.	R06A07_01.00 1.01.001
AUDIO	Optimized audio card service to solve the problem of abnormal exiting.	R06A07_01.00 1.01.001
GENERAL	Optimized AT command **AT+QDIAGPORT**.	R06A07_01.00 1.01.001
DFOTA	Added RSA public keys for FOTA upgrade.	R06A07_01.00 1.01.001
QuecLocator 2.0	Modified parameter format for AT commands related to base station positioning locator/LBS 2.0 below: **AT+QLBSCFG?**, **AT+QLBSCFG=?** and **AT+QLBSCFG="token"**.	R06A07_01.00 1.01.001
HTTP	Solved the problem that the obtained URL was the URL of HTTPS unexpectedly while the HTTP URL was entered under IPv6 address.	R06A07_01.00 1.01.001
GENERAL	Solved the problem of USB may disconnect when enabling auto suspend and resume.	R06A07_01.00 1.01.001

MQTT	Fixed module RI changed but no URC reported when sending data via MQTT protocol.	R06A07_01.00 1.01.001
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.	R06A07_01.00 1.01.001
Voice Call	Enabled the DSCI reporting of calling an emergency number without SIM card.	R06A07_01.00 1.01.001
HTTP	Optimized the feature of HTTP after enabling automatically outputting HTTP(S) response header by **AT+QHTTPCFG="rspout/auto",1**.	R06A07_01.00 1.01.001
SMS	Solved the problem that the SMS center address would not be reported under GSM network.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the module could not enter sleep mode after restarting Modem.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that VF_Germany MBN could not be activated automatically and PLMN was abnormal.	R06A07_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.	R06A07_01.00 1.01.001
SMS	Fixed the problem of insufficient SMS storage.	R06A07_01.00 1.01.001
GENERAL	Disable PDC MBN load feature.	R06A07_01.00 1.01.001
AUDIO	Solved the problem that the codec parameter was restored to the default value after executing audio-related command during a call.	R06A07_01.00 1.01.001
MQTT	Improved module stability when MQTT receives many subscribed topics.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Optimized **AT+QFWDHTTP** to set the maximum URL length to 1024 bytes, add timeout setting and return HTTP response code.	R06A07_01.00 1.01.001
MQTT	Improved module stability when using **AT+QMTPUBEX** related to MQTT to publish data larger than 1500 bytes.	R06A07_01.00 1.01.001
FILE	Removed redundant Q files in SFS path.	R06A07_01.00 1.01.001
SIMCARD	Enabled the feature of invalid SIM card identification.	R06A07_01.00 1.01.001
FILE	Extended AT command **AT+QFMOV** to move the file among UFS, SD and RAM.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that there was no error returned by **AT+QFWDSERVER** after setting an out-of-range socket ID, and AT port could not work normally after **AT+QFWDCLOSE** closed this ID.	R06A07_01.00 1.01.001
GENERAL	Optimized **AT+QGPSCFG="outport","uartdebug"** to make the configuration being saved after module rebooting.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the previous URC was outputted in the next RI signal transition when receiving the continuous URC	R06A07_01.00

	quickly.	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.	R06A07_01.00 1.01.001
TCP SSL	Solved the problem that the format of the parameter <op> of dtls and the parameter <version> of dtls version were incorrect returned by **AT+QSSLCFG=?**.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Modified the range of the parameter <dpoenable> of **AT+QGPSCFG="dpoenable"** from (0,1) to (0,2).	R06A07_01.00 1.01.001
MQTT	Corrected the return format of **AT+QMTCFG=?**.	R06A07_01.00 1.01.001
NETWORK	Optimized **AT+QCFG="fast_dormancy"** to support fast dormancy mode 3.	R06A07_01.00 1.01.001
QuecLocator 2.0	Solved the problem that the error code returned incorrectly after executing **AT+QLBS**.	R06A07_01.00 1.01.001
TCP SSL	Ignored the verification for multi-level certificate chains by default in the embedded SSL protocol.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the GPS sentence could not be output from the UART debug port after executing **AT+QGPSCFG="outport","none"**.	R06A07_01.00 1.01.001
SMS	Solved the problem that the current operator's SMS center number could not be displayed after enabling the SIM card hot-plugging function.	R06A07_01.00 1.01.001
Voice Call	Optimized the three-party call function.	R06A07_01.00 1.01.001
HTTP	Solved the problem that the module worked improperly after asking an HTTP request with wrong URL.	R06A07_01.00 1.01.001
FTP	Supported multiple server response parsing in FTP mode.	R06A07_01.00 1.01.001
GENERAL	Modified "uar1" returned by the **AT+QFWDCFG=?** command to "uart1".	R06A07_01.00 1.01.001
NETWORK	Increased the maximum length of APN from 62 to 65.	R06A07_01.00 1.01.001
MMS	Supported using **AT+QMMSCFG="proxy"** to set MMS proxy address starting with 0.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that there was no "uac_fs" and "uac_music" returned after executing **AT+QAUDCFG=?**.	R06A07_01.00 1.01.001
TCP/UDP	Solved the problem that after PDP was activated, executing **AT+QIDEACT** command immediately without response may cause AT port not work normally.	R06A07_01.00 1.01.001
QuecLocator 2.0	Solved the problem that the default server port (80) could not be obtained by **AT+QLBSCFG?**.	R06A07_01.00 1.01.001

AUDIO	Updated ACDB file to fix LTE noise problem in telstra certification.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the domain name address in IPv6 format resolved by **AT+QIDNSGIP** was incorrect.	R06A07_01.00 1.01.001
GENERAL	Update Bouygues_France_VoLTE MBN version to 202004151.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Solved the problem of disconnection after USB suspended and then resumed.	R06A07_01.00 1.01.001
NETWORK	Optimized Telecom LTE ONLY IoT card network registration (taking effect immediately).	R06A07_01.00 1.01.001
DTMF	Extended **AT+QWDTMF** command to modify the DTMF tone source file and control two DTMF tone interval duration; Extended **AT+QTONEDET** command to support DTMF soft decoding.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that in USB mode, **AT+QCFG="lpm/dataind"** detected the wrong wake-up condition and judges to wake up the module constantly.	R06A07_01.00 1.01.001
GENERAL	Supported **AT+QRFTESTPWR** to get the supported bands.	R06A07_01.00 1.01.001
GENERAL	Not reported the status of PIN2 by default in MBIM mode.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that in CMUX mode, **AT+QURCCFG="URCPORT","all"** set all ports to output URCs, but URC could not output from USB AT port properly.	R06A07_01.00 1.01.001
GENERAL	Simplified FTM TX function to configure TX power with a fixed value 20dbm.	R06A07_01.00 1.01.001
NETWORK	Solved the problem that LTE network could not be recovered after disconnection under some special network environments.	R06A07_01.00 1.01.001
FTP	Optimized the process of connection and interaction compatible with various servers.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Extended **AT+QCFG="dhcppktfltr"** command to determine whether to filter packets according to DHCP destination addresses.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that the sleep_ri pin did not jitered when receiving PPP data in the sleep state (A**T+QCFG="ppp/sleep_ri"** did not take effect).	R06A07_01.00 1.01.001
SMS	Solved the problem that **AT+QCFG="urcport/sms"** could not set SMS reporting port to debug port.	R06A07_01.00 1.01.001
GENERAL	Solved the problem of unable to register to the network caused by abnormal SIB messages.	R06A07_01.00 1.01.001
TCP/UDP	Solved the problem that the number of connected clients did not match the set clients when the module was used as a TCP server.	R06A07_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.	R06A07_01.00 1.01.001
FTP	Solved the problem that error code 627 returned when data was downloaded discontinuously through FTP.	R06A07_01.00 1.01.001
MQTT	Corrected the response format of **AT+QMTUNS=?** from +QMTSUB to +QMTUNS.	R06A07_01.00 1.01.001
FTP	Solved the problem that error code 619 may be returned when PUT file via FTP.	R06A07_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.	R06A07_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"**.	R06A07_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.	R06A07_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.	R06A07_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.	R06A07_01.00 1.01.001
GENERAL	Optimized the CEFS backup and restore mechanism to restore lost files.	R06A07_01.00 1.01.001
GENERAL	Improved the TX feature when switching from other RATs to LTE mode.	R06A07_01.00 1.01.001
GENERAL	Optimized **AT+QPOWD=0** to fast shut down the module.	R06A07_01.00 1.01.001
GENERAL	Optimized the ubi read-write partition mounting and exception handling mechanism.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that after the modem rebooted, ECM and RNDIS could not ping the Internet normally.	R06A07_01.00 1.01.001
GENERAL	Optimized the jamming detection algorithm in GSM mode.	R06A07_01.00 1.01.001
MQTT	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that Host could not obtain the IP from MBIM if the network only allocated IP without DNS address.	R06A07_01.00 1.01.001
GENERAL	Corrected response format of **AT+QWWAN=?**.	R06A07_01.00 1.01.001
GENERAL	Solved the problem that Modem could not work normally after executing **AT+CFUN=4** during booting.	R06A07_01.00 1.01.001
TCP SSL	Improved the stability of the module when one TCP SSL was multiplexed at the same time under multiple TCP SSL context.	R06A07_01.00 1.01.001

MQTT	Corrected the sever port range returned by A**T+QMTOPEN=?** to (1-65535).	R06A07_01.001.01.001
TCP/UDP	Solved the problem of memory leak caused by executing **AT+QISENDX** command.	R06A07_01.001.01.001
GENERAL	Solved the problem that **AT+CPBR** could not read the SIM ECC number.	R06A06_01.006.01.006
NETWORK	Solved the problem that there was no LTE result when executing **AT+QCOPS=7,0** and **AT+QCOPS=4,0**.	R06A06_01.006.01.006
Voice Call	Solved the problem that two sessions would be opened during a call.	R06A06_01.006.01.006
DFOTA	Supported long URL of HTTPs for DFOTA feature.	R06A06_01.006.01.006
DFOTA	Opened the serial port for URC output at the baud rate that the customer set during the recovery process.	R06A06_01.006.01.006
HTTP	Updated the encode_buffer size from 1024 to 2048 bytes for supporting long URL.	R06A06_01.006.01.006
NETWORK	Improved the stability when executing **AT+QNETINFO=2,2** or **AT+QNETINFO=2,f** with unstable network.	R06A06_01.006.01.006
GENERAL	Merged Qualcomm patch to solve the problem of profile memory leaking.	R06A06_01.006.01.006
GENERAL	Solved the problem that the extra USB port would be loaded when configuring only one RNDIS via **AT+QCFG="usbfg"**.	R06A06_01.006.01.006
CMUX	Extended the maximum baud rate level of serial port to be 7 (460800 bit/s) of command **AT+CMUX**.	R06A06_01.006.01.006
TCP/UDP	Supported to report the data length within TCPIP URC reported.	R06A06_01.006.01.006
TCP/UDP	Optimized the module stability when receiving more than 751 bytes under TCP hex mode.	R06A06_01.006.01.006
TCP/UDP	Optimized the process when sending UDP data on different destination port.	R06A06_01.006.01.006
GENERAL	Modified the default value of command **AT+QCFG="pdp/duplicatechk"** to be 0.	R06A06_01.006.01.006
GENERAL	Optimized AT command **AT+QLEDSTAT** to configure network LED status.	R06A06_01.006.01.006
GENERAL	Added AT command **AT+QSIMCHK**.	R06A06_01.006.01.006
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.	R06A06_01.006.01.006
TCP SSL	Optimized AT command **AT+QSSLCFG** to support multiple CA certification.	R06A06_01.006.01.006
RMNET	Solved the problem that error occurred after executing command **AT$QCRMCALL**.	R06A06_01.006.01.006
TCP SSL	Optimized the command **AT+QSSLCFG** to support the TLS1.3 protocol.	R06A06_01.00

		6.01.006
Voice Call	Solved the problem that there was no URC reported when calling an emergency number.	R06A06_01.00 6.01.006
CMUX	Solved the problem that there was no hopping information report for RI pin when call or SMS incoming if enabled CMUX feature.	R06A06_01.00 6.01.006
TCP/UDP	Solved the problem that the reported URC content was incorrect when UDP server connected several clients.	R06A06_01.00 6.01.006
TCP SSL	Improved the stability when receiving data exceeding 4060 bytes in SSL mode.	R06A06_01.00 6.01.006
GENERAL	Optimized UE identity reporting process.	R06A06_01.00 6.01.006
GENERAL	Reported URC to indicate debug UART is ready for AT command when dual serial port is enabled.	R06A06_01.00 6.01.006
GENERAL	Optimized RF TX under non-signaling mode.	R06A06_01.00 6.01.006
GENERAL	Optimized AT Command **AT+QCFG="DISRPLMN"** to close RPLMN.	R06A06_01.00 6.01.006
GENERAL	Optimized the module to solve the problem that USB HOST did not support zero packet.	R06A06_01.00 6.01.006
GENERAL	Solved the problem of no CONNECT report when CSD automatically answered.	R06A06_01.00 6.01.006
FTP	Solved the issue that the serial port could not work normally after executing FTPS command to establish a data channel successfully.	R06A06_01.00 6.01.006
MQTT	Solved the problem that the module could not receive more than 1024 bytes of data sent by the MQTT server.	R06A06_01.00 6.01.006
Voice Call	Fixed the probabilistic issue of no sound during the voice call.	R06A06_01.00 6.01.006
CMUX	Solved the issue that module could not enter sleep mode after enabling CMUX.	R06A06_01.00 6.01.006
NETWORK	Optimized AT command **AT+QCFG="urc_cause_support"**.	R06A06_01.00 6.01.006
HTTP	Optimized the HTTP process.	R06A06_01.00 6.01.006
TCP/UDP	Solved the problem that extra timeout URCs would be reported unexpectedly when executing **AT+QPING** several times during one timeout.	R06A06_01.00 6.01.006
Voice Call	Support **AT+QCFG="Feature_Switch_Flag"** to disable incoming voice call when data connection was set up.	R06A06_01.00 6.01.006
AUDIO	Modified the MX73 register of the ALC5616 to increase DAC signal-to-noise ratio and reduce the background noise of the down-link output signal.	R06A05_01.00 5.01.005
NETWORK	Optimized AT command **AT+QCOPS** to change the maximum time for a single band scan to 5s.	R06A05_01.00 5.01.005
Voice Call	Optimized AT command **AT+QAUDCFG="voltedtmfcfg"**.	R06A05_01.00

		5.01.005
GENERAL	Optimized file system protection mechanism.	R06A05_01.00 5.01.005
AUDIO	Optimized AT command **AT+QLTONE** to solve the issue that playing mute was not on time.	R06A05_01.00 5.01.005
SMS	Extended AT command **AT+CMGR** to support read SMS without changing storage status.	R06A05_01.00 5.01.005
NETWORK	Solved the problem that when the neighbor cells was too much, the execution of **AT+QENG="neighbourcell"** would cause the module to crash.	R06A05_01.00 5.01.005
SIMCARD	Optimized AT command **AT+QDSIM** that card slot was 1 when boot initialization if this command set to an illegal value.	R06A05_01.00 5.01.005
NETWORK	Solved the issue of PDP activation failure caused by inconsistency between network APN and profile APN.	R06A05_01.00 5.01.005
TCP/UDP	Solved the issue that the returned address format queried via AT command **AT+QISTATE** and **AT+QIACT?** was incorrect when connected with IPv6.	R06A05_01.00 5.01.005
Voice Call	Supported DTMF software decoding.	R06A05_01.00 5.01.005
AUDIO	Supported ECRX and ENC gain.	R06A05_01.00 5.01.005
NETWORK	Solved the issue that the returned value queried by AT command **AT+QCSQ** was different from the RSSI value reported by URC.	R06A05_01.00 5.01.005
AUDIO	Supported max9860 codec.	R06A05_01.00 5.01.005
AUDIO	Optimized AT command **AT+QLDTMF** to solve the issue that the playback interval was too short.	R06A05_01.00 5.01.005
NETWORK	Fixed the problem of the abnormal configuration of the module band after restart, caused by the power-off during the execution of AT command **AT+QCOPS**.	R06A05_01.00 5.01.005
GENERAL	Optimized AT command **AT+QCFG="thermal/modem"**.	R06A05_01.00 5.01.005
PPP	Fixed the issue that when exited the PPP data transmission and reported NO CARRIER, URC has a dump due to the early release of the port.	R06A05_01.00 5.01.005
Voice Call	Optimized AT command **AT+QTONEDET** to configure DTMF software detection sensitivity.	R06A05_01.00 5.01.005
GENERAL	Added AT command **AT+QLEDSTAT** to configure and query network status light.	R06A05_01.00 5.01.005
HTTP	Changed HTTP socket close wait time default value to 5000ms.	R06A05_01.00 5.01.005
HTTP	Fixed the issue of QHTTPPOST timeout when even received data already in some cases.	R06A05_01.00 5.01.005
TCP/UDP	Changed the 2nd parameter range from (1,2) to (1-3) of AT command **AT+QICSGP=?** to support IPv4v6.	R06A05_01.00 5.01.005

NETWORK	Optimized AT command **AT+QCOPS**.	R06A05_01.00 5.01.005
MQTT	Optimized MQTT keep-alive process.	R06A05_01.00 5.01.005
FTP	Optimized AT command **AT+QFTPCFG="data_address"**, modified default data_address to 2, default time to 25s.	R06A05_01.00 5.01.005
AUDIO	Supported UAC by AT command **AT+QCFG="usbcfg"**.	R06A05_01.00 5.01.005
LowPower	Optimized AT command **AT+QCFG="wakeupin/level"** to add the second parameter.	R06A05_01.00 5.01.005
NETWORK	Extended AT command **AT+QNETINFO** to query cycle of lte drx cdrx/ wcdma drx/ GSM drx.	R06A05_01.00 5.01.005
TCP/UDP	Solved the issue that AT command **AT+QICLOSE** returned for long time when the TCP server return (FIN,ACK) at the same time.	R06A05_01.00 5.01.005
SMS	Extended the IRA character set to GSM 7 bit default alphabets.	R06A05_01.00 5.01.005
TCP SSL	Optimized SSL third-party library.	R06A05_01.00 5.01.005
MMS	Reported URC: 769/775/771 when MMS connection timeout.	R06A05_01.00 5.01.005
GENERAL	Fixed the following issues that FTM RX value was incorrect for the first time and the RX value was always 0 when entered or exited the factory mode.	R06A05_01.00 5.01.005
TCP/UDP	Optimized AT command **AT+QISTATE** and **AT+QIACT?** to display IPV6 address.	R06A05_01.00 5.01.005
GENERAL	Optimized USB enumeration logic.	R06A05_01.00 5.01.005
NETWORK	Optimized AT command **AT+QCOPS** to solved issue that executing **AT+COPS=0** would cause PPP disconnection.	R06A05_01.00 5.01.005
NETWORK	Added AT command **AT+QCOPSCFG** and optimized **AT+QCOPS** to speed up the execution of this command.	R06A05_01.00 5.01.005
TCP/UDP	Optimized TCPIP in transparent access mode.	R06A05_01.00 5.01.005
NETWORK	Optimized AT command **AT+QCOPS** to show more LTE cells.	R06A05_01.00 5.01.005
MQTT	Fixed the issue that the module would be stuck when AT command **AT+QMTPUBEX** sent data under the weak signal.	R06A05_01.00 5.01.005
AUDIO	Optimized AT command **AT+QAUDRDGAIN** to solve the issue of audio play failure.	R06A05_01.00 5.01.005
NETWORK	Solved the issue that the GSM parameter was incorrect when queried via AT command **AT+QCOPS**.	R06A05_01.00 5.01.005
PHB	Optimized PHB MSISDN to achieve that when inserted Mobile 4G card / Unicom 4G card, used **AT+CNUM** to read the phone number directly.	R06A05_01.00 5.01.005

NETWORK	Extended AT command **AT+QCOPS** to display multiple band points of a single LTE band in the response result.	R06A05_01.00 5.01.005
NETWORK	Fixed the issue that MQTT would cause stuck.	R06A05_01.00 5.01.005
MQTT	Optimized AT command could subscribe to five topics at the same time at most.	R06A05_01.00 5.01.005
GENERAL	Optimized NTP/MQTT/FTP to support IPV6 connection.	R06A05_01.00 5.01.005
TCP/UDP	Solved the problem that when established multiple TCP connection, it was abnormally to loop QIRD quickly.	R06A05_01.00 5.01.005
MQTT	Fixed the issue the when MQTT connection was established in the SSL mode, if the data delivered by the subscribed topic longer than 1024 bytes, the module could not report data.	R06A05_01.00 5.01.005
NETWORK	Fixed stuck issue when APN settings was set for thousands times without stopping.	R06A05_01.00 5.01.005
DFOTA	Optimized DFOTA process.	R06A05_01.00 5.01.005
FTP	Modified data_address range of AT command **AT+QFTPCFG=?**	R06A05_01.00 5.01.005
AUDIO	Solved the issue that the ringing tone of the second MT-CALL could not be played on TI3104 codec.	R06A05_01.00 5.01.005
NETWORK	Solved the issue that scanning flag was not cleared when executing **AT+QCOPS** returned error.	R06A05_01.00 5.01.005
TCP SSL	Modified SSL to support TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384.	R06A05_01.00 5.01.005
Voice Call	Optimized AT command **ATS0=<n>** to realize that the module would automatically answer CSD CALL after RING <n> times.	R06A05_01.00 5.01.005
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.	R06A05_01.00 5.01.005
FTP	Solved the issue that when FTPS connected, it was abnormally to read a non-existence file after executing AT command **AT+QFTPGET**.	R06A05_01.00 5.01.005
NETWORK	Fixed the issue that **AT+QCOPS** may make AT stuck rarely.	R06A04
HTTP	Fixed frequent error 702 when posting file by **AT+QHTTPPOSTFILE**.	R06A04
SMS	Fixed the command error when executing **AT+CNMA** after module receives +CMT message.	R06A04
PPP	Fixed the issue that PPP data connection can't be set up in GSM mode rarely.	R06A04
GENERAL	Fixed network status to off status when module is in sleep mode.	R06A04
FTP	Support to handle response code 125 from FTP server.	R06A04
GENERAL	Modified the range of LTE SINR from **AT+QENG**.	R06A04

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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	HTTP	PING	TCP SSL
Y	Y	Y	Y	Y	Y	Y	Y	Y
MQTT	MMS[2]	SMTP	SMTPS	HTTPS				
Y	Y	Y	Y	Y				

Special Function								
SIM Detection	DFOTA	DTMF[3]	Dual UART	TTS	Quec Locator 2.0[4]	DSSS	UAC	LowPower
Y	Y	Y	Y	Y	Y	Y	Y	Y
RMNET	ECM	RNDIS						
Y	Y	Y						

NOTES

1. Y means the firmware supports this function.
2. N means the firmware does not support this function.
3. [1] Supports RAM FILE only.
4. [2] Supports MMS sending only.
5. [3] Supports DTMF decoding only.
6. [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.
7. Verification Environment is shown below. For more details, please contact Quectel technical support.

For Windows,
USB Driver: Quectel_LTE_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

QLog Tool: Quectel_QLog_Linux&Android_V1.4.10

Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.0.15

USB Driver: Quectel_LTE&5G_Linux_USB_Driver_V1.0

QFlash Tool: LTE&LTE-A_QFlash_Linux&Android_V2.0