

EC25-AF-FA Release Notes

LTE Standard Module Series

Rev. EC25-AF-FA_Firmware_Release_Notes_V0714_01.003.01.003

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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

Or our local office. For more information, please visit:

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1. Preamble

This document provides the Release Notes for EC25-AF-FA firmware version **EC25AFFAR07A14M4G_01.003.01.003**. It describes major changes compared to EC25-AF-FA firmware version **EC25AFFAR07A14M4G_01.002.01.002**.

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
DTMF	Added AT+QAUDCFG="voldetmfcfg" to configure local playback time and interval time of VoLTE DTMF.	R07A14_01.0 03.01.003
WIFI	<ol style="list-style-type: none"> Added AT+QFILTER="mode" to set the black and white list in WIFI AP mode. Added AT+QFILTER="add" to add the filtering addresses of black and white list in WIFI AP mode. Added AT+QFILTER="del" to delete the filtering addresses of black and white list in WIFI AP mode. Added AT+QFILTER="list" to list the configured filtering addresses of black and white list in WIFI AP mode. Added AT+QTRANSDOMAIN to set domain name conversion. Added AT+QFLOWCOUNT to count the uplink and downlink traffic data of WIFI AP. 	R07A14_01.0 03.01.003
GENERAL	Added AT+QCFG="gatewayset" and AT+QCFG="netmaskset" to set gateway address and subnet mask.	R07A14_01.0 03.01.003
GENERAL	Added AT+QDTMFDETSET to configure the DTMF detection parameter of ACDB.	R07A14_01.0 03.01.003
DFOTA	Added AT command AT+QFOTATIMECFG to set DFOTA expiration time.	R07A14_01.0 02.01.002
FILE	Added AT command AT+QFMov to support moving a file.	R07A14_01.0 02.01.002
NETWORK	Added AT command AT+QNWCFG="rej_cause_7_mapping" to	R07A14_01.0

	control whether to map the network rejection reason value #7.	02.01.002
SIMCARD	Added AT command AT+QSIMCFG="disable_physim" to enable or disable SIM card.	R07A14_01.0 02.01.002
TCP SSL	Added AT+QSSLCFG="ignorecertitem" to solve the problem of SSL disconnection.	R07A14_01.0 02.01.002
WIFI	Added AT commands AT+QWIFICFG="datarate" and AT+QWIFICFG="traffictransf" to query WIFI rate and traffic respectively.	R07A14_01.0 02.01.002
GENERAL	Supported USCC MBN.	R07A14_01.0 02.01.002
GENERAL	Extended AT+QCFG="ledmode" command: When <mode>=3, the NET_STATUS light outputs a high level when SIM card is not inserted or registered, and the NET_STATUS light is expected to flash in the network state.	R07A14_01.0 02.01.002
GENERAL	Added AT+QUICKSHUTDOWN command to set the fast shutdown.	R07A14_01.0 02.01.002
TCP/UDP	Added the AT command AT+QCFG="TCP/SendMode" to configure TCP sending mode.	R07A14_01.0 01.01.001
GENERAL	Supported T-Mobile SIM card (311-882).	R07A14_01.0 01.01.001
GENERAL	Supported PA QM56030.	R07A14_01.0 01.01.001
UAC	Supported 16K sampling rate by UAC.	R07A13_30.0 02.30.002
GENERAL	Added AT+QLWCFG="LWM2M_enable" to control whether to automatically start LwM2M for the specified operator.	R07A13_30.0 02.30.002
WIFI	Supported LTE and WIFI coexistence mechanism.	R07A13_30.0 01.30.001
Voice Call	Added DSCI report in emergency call.	R07A13_30.0 01.30.001
GENERAL	Added AT command AT+QCFG="secbootstat" to get whether SecBoot is enabled or not.	R07A13_30.0 01.30.001
GENERAL	Supported Telefonica certification feature.	R07A13_30.0 01.30.001
GENERAL	Added AT command AT+QGPSPAI to obtain GNSS positioning assistance information.	R07A13_30.0 01.30.001
GENERAL	Supported Telus_Consumer MBN.	R07A13_30.0 01.30.001
MQTT	Added AT command AT+QMTCFG="protocol/check" to configure whether to check MQTT header information.	R07A13_01.0 04.01.004
MMS	Added AT command AT+QCFG="mms_rec_control" to control whether to save the received MMS.	R07A13_01.0 03.01.003

GENERAL	Supported outputting \$PQXML NMEA sentences, and not outputting \$PQXML sentences by default.	R07A13_01.0 03.01.003
NETWORK	Added AT command to control AT+COPS to scan band, not affecting the band scan of AT+QCFG="nwscanmodeex" .	R07A13_01.0 03.01.003
DFOTA	Added AT command AT+QFOTADL=<url>,"down_to_ufs",<local_file_name>[,<username>,<password>] to download the FTP file to local UFS directory.	R07A13_01.0 02.01.002
GENERAL	Supported Rogers MBN with version 201909171.	R07A13_01.0 01.01.001
GENERAL	Extended AT command AT+QMBNCFG="list" to get MBN separately.	R07A13_01.0 01.01.001
TCP/UDP	Added AT command AT+QCFG="tcp/windowsize" to configure HTTP socket window size.	R07A13_01.0 01.01.001
PPP	Added AT command AT+QCFG="ppp/sleep_ri" to configure the feature whether to enable informing the module wakeup from sleep by RI PIN.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="iprulectl" to control whether to use IP rules customized by users.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QRRCCONSTATE to get RRC connection state of WCDMA/LTE.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QICSGPEH to configure quoted context parameters.	R07A13_01.0 01.01.001
NETWORK	Added AT+QCFG="urc_cause_support" to control whether to actively report network rejection causes such as ESM/EMM/CP/GMM/MM through URC.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QODM="devinfo" to configure the device information.	R07A13_01.0 01.01.001
FTP	Added commands EPSV/EPRT to match IPv6 FTP.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QODM="script" to read value of omadm node.	R07A13_01.0 01.01.001
GENERAL	Supported to report all URC via command AT+QURCCFG="urcport","all" .	R07A13_01.0 01.01.001
GENERAL	Supported socket data forward and added related AT commands: AT+QFWDCLIENT , AT+QFWDSEVER , AT+QFWDCLOSE , AT+QFWDSEND and AT+QFWDRECV .	R07A13_01.0 01.01.001
DTMF	Added AT command AT+QVTS to send a DTMF signal.	R07A13_01.0 01.01.001
PPP	Added AT command AT+QCFG="ppp/v4v6" to dial up and access the network with IPv4 or IPv6.	R07A13_01.0 01.01.001
NETWORK	Added AT command AT+QDISABLERETRY to control Initiating a network attachment request every 12 minutes when rejection cause was 19.	R07A13_01.0 01.01.001
DFOTA	Added HTTP DFOTA to parse URL with type of AT+QFOTADL="http://user:password@<http_server_URL>:<http_port>/<http_file_path>"	R07A13_01.0 01.01.001

GENERAL	Added AT command AT+QCFG="fast/poweroff" to control whether to power off the module quickly.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="qoos" to optimize the power consumption of network search in sleep mode.	R07A13_01.0 01.01.001
SMS	Added AT+QCFG="sms_control" to control SMS sending and reception.	R07A13_01.0 01.01.001
Voice Call	Added AT+QCFG="call_control" command to control voice MO and MT functions.	R07A13_01.0 01.01.001
TCP SSL	Added AT command AT+QSSLRCV to read the remaining data.	R07A13_01.0 01.01.001
WIFI	Added AT commands AT+QWIFICFG="scan" to scan WIFI, AT+QWIFICFG="scanresult" to get the scan result and AT+QWIFICFG="stastatus" to get the WIFI status.	R07A13_01.0 01.01.001
GENERAL	Supported to report URC to MCU when thermal mitigate level was up to 3.	R07A13_01.0 01.01.001
NETWORK	Added AT command AT+QEGPAPN to get the actual APN and the configured APN.	R07A13_01.0 01.01.001
GENERAL	Added AT+QFWDCFG="urc_with_len" to control the reporting format and behavior of URC.	R07A13_01.0 01.01.001
QuecLocator 2.0	Added AT command AT+QLBSEX to enter the cell parameter for positioning.	R07A13_01.0 01.01.001
NETWORK	Added the function of preferential registration to the network for the specified LTE band.	R07A13_01.0 01.01.001
NETWORK	Added jamming detection function.	R07A13_01.0 01.01.001
Voice Call	Added AT command AT+QCFG="voice_busytone" to enable/disable busy tone playback for Verizon network.	R07A13_01.0 01.01.001
GENERAL	Added class 6 APN for Verizon.	R07A13_01.0 01.01.001
TCP SSL	Added AT command AT+QSSLCFG="alpn" to set SSL alpn.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="wakepin/level" to set the wake-up pin level and whether to enable the wake-up function.	R07A13_01.0 01.01.001
HTTPS	Added AT+QSSLCFG="session_cache" command to optimize HTTPS connection.	R07A13_01.0 01.01.001
TCP SSL	Added AT command AT+QSSLCFG="renegotiation" to enable/disable renegotiation function.	R07A13_01.0 01.01.001
AUDIO	Supported recording and playing audio in AMR format.	R07A13_01.0 01.01.001
GENERAL	Added AT command AT+QOPS to scan full frequency and display a list of network information of all available operators in the current physical location.	R07A13_01.0 01.01.001
MMS	Added AT command AT+QMMSCFG="maxpktlen" to support setting MMS sending length.	R07A13_01.0

		01.01.001
NETWORK	Added AT command AT+QRETRYCTL to control attachment request according to rogers back off mechanism.	R07A13_01.0 01.01.001
SIMCARD	Added AT command AT+QSIMCHK to send UIM_AUTHENTICATE_REQ (UIM authentication).	R07A13_01.0 01.01.001
SIMCARD	Added AT commands AT+QSIMWRFREQ to record the frequency of EF files written to SIM card and AT+QSIMVOL to configure SIM card supply voltage.	R07A13_01.0 01.01.001
NETWORK	Added AT commands AT+QOPSCFG="scancontrol" to configure bands to be scanned under 2G/3G/4G and AT+QOPSCFG="displayrssi" to enable/disable to display RSSI under LTE.	R07A13_01.0 01.01.001
FILE	Added File SFS function.	R07A13_01.0 01.01.001
TCP/UDP	Added AT command AT+QICFG="tcp/keepalive" to configure whether to enable TCP keepalive function.	R07A13_01.0 01.01.001
BT	Added Bluetooth function (SPP, BLE and HFG) and AT command AT+QCFG="spi/set" to write a mark in rawdata to control the initialization of GPIO/SPI6/UART6.	R07A13_01.0 01.01.001
WIFI	Added AT command AT+QWIFICFG="bridgemode" to support WIFI dongle function.	R07A13_01.0 01.01.001
GENERAL	Supported using AT+CSCS command with no SIM card inserted.	R07A13_01.0 01.01.001
AUDIO	Optimized AT+QLTONE to play tone.	R07A13_01.0 01.01.001
GENERAL	Added AT+QGSN to get module GSN number and AT+QIMI to get IMEI number.	R07A13_01.0 01.01.001
DTMF	Added AT command AT+QWDTMF to play DTMF files or send it to Far-end.	R07A13_01.0 01.01.001
GENERAL	Supported VoLTE for TELUS.	R07A13_01.0 01.01.001
HTTP	Added the following AT commands: AT+QHTTPSEND; AT+QHTTPCFGEX; AT+QHTTPPUT; AT+QHTTPPUTFILE.	R07A08_01.0 02.01.002
GENERAL	Added AT command AT+QNETINFO.	R07A08_01.0 02.01.002
NETWORK	Added AT command AT+QNWLOCK="common/lte".	R07A08_01.0 01.01.001
TCP SSL	Added AT command of AT+QSSLSEND=0,0 to query the cache status of the AT+QSSLSEND.	R07A08_01.0 01.01.001
AUDIO	Added UAC function.	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="fast_dormancy".	R07A08_01.0 01.01.001

GENERAL	Added AT command AT+CCHO/ AT+CCHC/ AT+CGLA .	R07A08_01.0 01.01.001
GENERAL	Added URC for fumo pkg checking.	R07A08_01.0 01.01.001
SIMCARD	Added AT command AT+QSIMAUTH .	R07A08_01.0 01.01.001
QuecLocator 2.0	Added the positioning function of AT+QLBS .	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="usbmode" to query USB port status and automatically reported the status to main UART.	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="lpm/dataind" to enable the wake-up function conditionally.	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QIACTEX .	R07A08_01.0 01.01.001
GENERAL	Added DTLS function.	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QIDEACTEX .	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QFWDCLIENT .	R07A08_01.0 01.01.001
GENERAL	Added AT command AT+QCFG="volte_disable" .	R07A07_01.0 01.01.001
GENERAL	Added ADB and UART security features.	R07A07_01.0 01.01.001
GENERAL	Added AT command AT+QGPSCFG="fixfreq" .	R07A07_01.0 01.01.001
MQTT	Added AT command AT+QMTCFG="willex" to configure will_msg.	R07A07_01.0 01.01.001
CMUX	Supported CMUX feature.	R07A07_01.0 01.01.001
Voice Call	Added AT commands AT+QIMSACT , AT+QDIAL and AT+QCHLDIPMPTY .	R07A07_01.0 01.01.001
GENERAL	Added AT command AT+QODM="fumo" .	R07A06_01.0 01.01.001
GENERAL	Added AT command AT+QODM="dme" .	R07A06_01.0 01.01.001
TCP SSL	Added AT command AT+QSSLCFG="clientkey" .	R07A05_01.0 01.01.001
GENERAL	Added subcommand AT+QCFG="divctl" .	R07A05_01.0 01.01.001
GENERAL	Added AT command AT+QODM="hostdevice" for ATT OMA.	R07A05_01.0 01.01.001
RMNET	Added AT+QCFG="dhcppkftlfr" command to Disable/Enable DHCP server on module side when using Gobinet or QMI_WWAN driver.	R07A03

	DHCP server is enabled by default.	
GENERAL	Changed to show same USB description as normal mode when module converts to DM during firmware upgrading.	R07A03
GENERAL	Supported to convert module from DM mode to Firehose mode.	R07A03
HTTP	Added AT command AT+QHTTPCFG="window size" to configure size of slide window for HTTP socket.	R07A02
GENERAL	Refreshed NV settings when one of Verizon/AT&T/T-Mobile sim card inserted.	R07A02
GENERAL	Supported to auto-select MBN file.	R07A01
GENERAL	Supported AT+QMBNCFG="Select" to select MBN manually.	R07A01

4. Improved Features

Item/Category	Brief Description	Since
FILE	Solved the problem that when uploading files by executing AT+QFUPL , the module would restart if the file name contained "\" or "/".	R07A14_01.0 03.01.003
MQTT	Solved the problem that when data transmitted through the MQTT protocol, one byte more or one byte less would occur with low probability in the received data	R07A14_01.0 03.01.003
SMTP	Optimized the recipients display of SMTP, and fixed the problem that more contacts cannot be viewed in the content of sent emails.	R07A14_01.0 03.01.003
GENERAL	Fixed the problem that cannot be queried and set normally through AT+ODIS and AT+QLWCFG="hostdevice" .	R07A14_01.0 03.01.003
GENERAL	Fixed the problem that AT+CPOL? could not be used normally on the main serial port.	R07A14_01.0 03.01.003
GENERAL	Optimized the problem of frequent reading and writing of LWM2M EFS.	R07A14_01.0 03.01.003
GENERAL	Fixed the problem that the parameters <cellid> and <tac> would not be output by AT+CGREG with low probability.	R07A14_01.0 03.01.003
GENERAL	Optimized back-off algorithm of Rogers operator.	R07A14_01.0 03.01.003
DFOTA	Solved the problem that error code 502 was reported during DFOTA upgrade.	R07A14_01.0 02.01.002
HTTP	Solved the problem that error code 702 was returned at AT+QHTTPPOSTFILE to upload files.	R07A14_01.0 02.01.002
HTTPS	Fixed the problem that the module was unstable after receiving RST during HTTPS handshake.	R07A14_01.0 02.01.002

SMS/BT	Solved the problem that SMS was abnormal after Bluetooth was turned on.	R07A14_01.0 02.01.002
TCP SSL	Solved the problem of no RI pin pulling when data reported in SSL client transparent transmission mode.	R07A14_01.0 02.01.002
TCP SSL	Solved the problem of SSL server connection failure due to incorrect SSL verification server certificate items.	R07A14_01.0 02.01.002
Voice Call	Solved the problem that the previous call number returned by AT+CLIP may be abnormally sometimes.	R07A14_01.0 02.01.002
WIFI	Updated WIFI firmware.	R07A14_01.0 02.01.002
WIFI	Solved the problem of network priority conflict when WIFI and LTE coexisted.	R07A14_01.0 02.01.002
GENERAL	Solved the problem that the module worked unstably at Telefonica certification.	R07A14_01.0 02.01.002
GENERAL	Solved the problem of CVE-2021-31698.	R07A14_01.0 02.01.002
GENERAL	Set voice centric for Verizon MBN.	R07A14_01.0 02.01.002
GENERAL	Set the ROW MBN profile1 to null and profile3 APN name to sos.	R07A14_01.0 02.01.002
GENERAL	Optimized Full Reg and Reg Update solutions for Verizon.	R07A14_01.0 02.01.002
GENERAL	Solved the problem that USB DM port may be abnormal sometimes.	R07A14_01.0 02.01.002
GENERAL	Modified IMS configuration parameters for Rogers MBN	R07A14_01.0 02.01.002
GENERAL	Solved the problem that there was an extra \r in the NMEA sentence after AT+CFUN=1,1 was executed.	R07A14_01.0 02.01.002
GENERAL	Solved the problem that AT+ODIS failed to set.	R07A14_01.0 02.01.002
GENERAL	Solved the problem that AT performance port could not work normally after AT+COPS execution.	R07A14_01.0 02.01.002
AUDIO	Improved AT+QCFG="pcmclk",1 to solve the problem that PCM sync signal may not be output sometimes.	R07A14_01.0 01.01.001
GENERAL	Solved the problem that after switching AT+CFUN=0 and AT+CFUN=1 , the APN type of "attm2mgloba" was changed from IPV4V6 to IPV4 after ATT was activated and the module registered to the network successfully.	R07A14_01.0 01.01.001
GENERAL	Solved the problem that AT+QCFG="qcautoconnect" could not enable the automatic connection in ECM or RNDIS mode.	R07A14_01.0 01.01.001
GENERAL	Solved the problem that the LwM2M program could not start normally after executing AT+CFUN=1,1 to reboot the module.	R07A14_01.0 01.01.001
GENERAL	Fixed CVE-2021-31698.	R07A14_01.0 01.01.001

GENERAL	Integrated Verizon SUPL Certificates in Verizon MBN.	R07A14_01.0 01.01.001
AUDIO	Solved the problem that audio recording could not work normally after AT+QMIC set the gain of MIC.	R07A13_30.0 02.30.002
MQTT	Solved the problem of failure to connect to some servers caused by the inability to enable MQTT SNI.	R07A13_30.0 02.30.002
MBIM	Solved the problem of MBIM network mode selection failure.	R07A13_30.0 02.30.002
GENERAL	Optimized AT+QLWCFG="startup" to turn on/off LwM2M for all operators.	R07A13_30.0 02.30.002
GENERAL	Updated ROW MBN version to 202108121.	R07A13_30.0 02.30.002
GENERAL	When peer IP address length was more than 50 chars, silently truncated the string to 50 chars.	R07A13_30.0 01.30.001
GENERAL	Not triggered card power-down if EF-DIR read fails.	R07A13_30.0 01.30.001
GENERAL	Populated file attributes for EST file when card did not return FCP data.	R07A13_30.0 01.30.001
GENERAL	No sim E911 call for specific operators should not be blocked.	R07A13_30.0 01.30.001
GENERAL	Solved the problem that Verizon OMA server could not be connected using IPv6.	R07A13_30.0 01.30.001
GENERAL	Modified the first APN to IPV6 only for TMO.	R07A13_30.0 01.30.001
GENERAL	Solved the problem that the uploaded ATT APN name of Object 11 instance 0 is null.	R07A13_30.0 01.30.001
GENERAL	Solved the problem URC broadcast could not work normally after enabling CMUX feature.	R07A13_30.0 01.30.001
GENERAL	Set the default MTU to 1430 for ATT and to 1342 for FirstNet.	R07A13_30.0 01.30.001
GENERAL	Modified the configuration of the 2nd profile (IMS) for TMO to change the OVRIDEHOPDP to IPV6.	R07A13_30.0 01.30.001
GENERAL	Extended AT command AT+QCFG="cmux/urcport" to support turning off CMUX port to report URC.	R07A13_30.0 01.30.001
GENERAL	Optimized the operator's 3G Sunset solution to solve the problem of no network in some scenarios (such as roaming) at AT&T 3G Sunset.	R07A13_30.0 01.30.001
GENERAL	Solved the problem of the incorrect results returned by AT+QTELEFONICA="retry_schema" .	R07A13_30.0 01.30.001
GENERAL	Disabled fast dormancy feature for TMO.	R07A13_30.0 01.30.001
AUDIO	Solved the problem that the ACDB file imported by AT+QACDBLOAD could not take effect.	R07A13_01.0 04.01.004
FTP	Solved the problem of timeout error (error code 609 returned) when	R07A13_01.0

	executing AT+QFTPOPEN to log in to the FTP(S) server.	04.01.004
MQTT	Solved the problem that when AT+QIDEACT was executed immediately after AT+QMTOPEN execution for the first time, +QMTSTAT: 0,2 was reported continuously after AT+QMTOPEN execution again.	R07A13_01.0 04.01.004
WIFI	Solved the problem that WIFI could not work normally after WIFI SSID was set via AT+QWIFICFG="ssid" .	R07A13_01.0 04.01.004
WIFI	Solved the problem that IPv6 information could not be returned by AT+QWIFICFG="stainfo" .	R07A13_01.0 04.01.004
GENERAL	Updated the Telus MBN version to 202103121 to reconfigure the APN profile.	R07A13_01.0 04.01.004
AUDIO	Solved the problem that the following commands returned ERROR and CME ERROR at the same time: 1. AT+QAUDRD 2. AT+QAUDPLAY 3. AT+QPSND 4. AT+QWTTS 5. AT+QLDTMF	R07A13_01.0 03.01.003
DFOTA	Supported using the fixed baud rate set before the upgrade during DFOTA upgrade.	R07A13_01.0 03.01.003
DFOTA	Solved the problem that the module could not report the DFOTA upgrade result to the Verizon server after the DFOTA upgrade ended.	R07A13_01.0 03.01.003
HTTP	Solved the problem that the module automatically rebooted when AT+QHTTPOSTFILE sends a POST request to HTTP(S) server through a file larger than 1M.	R07A13_01.0 03.01.003
MBIM	Solved the problem that Host could not obtain the IP from MBIM if the network only allocated IP without DNS address.	R07A13_01.0 03.01.003
MQTT	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.	R07A13_01.0 03.01.003
NETWORK	Change the range of SINR value returned by AT+QENG="SERVINGCELL" from (0~250) to (-20~30).	R07A13_01.0 03.01.003
SMS	Extended AT command AT+QCFG="ltesms/format" to send SMS in 3GPP2 format only and receive SMS in 3GPP2 and 3GPP format at the same time.	R07A13_01.0 03.01.003
Voice Call	Solved the problem that there may be no busy tone displayed when the call was hung up after enabling busy tone playing via AT+QCFG="voice_busytone" .	R07A13_01.0 03.01.003
WIFI	Solved the problem that after setting AT+QWSSIDHEX=1 and rebooting the module, 0 was returned by AT+QWSSIDHEX? .	R07A13_01.0 03.01.003
GENERAL	Solved the problem that the usldata ubi may be mounted abnormally in a short time after the module was powered off by executing AT+QPOWD=0 .	R07A13_01.0 03.01.003
GENERAL	Optimized the three-in-one MBN: 1. Solved the problem that the interface of three-in-one MBN could not	R07A13_01.0 03.01.003

	be called after activating the MBN manually.	
	2. Solved the problem that the configuration of three-in-one MBN did not take effect at booting for the first time after firmware download.	
GENERAL	Updated the ATT MBN version to 202100281 to use the MTU size allocated by the network and change ue_usage_setting to DATA Centric.	R07A13_01.0 03.01.003
GENERAL	Updated SE13 TABLE date to 2020/12/21.	R07A13_01.0 03.01.003
GENERAL	Solved the problem that AT+QCFG="PCMCLK" could not turn off PCM clock.	R07A13_01.0 03.01.003
GENERAL	Solved the problem that the incorrect value (0, indicating that RNDIS is not automatically connected) returned by AT+QCFG="QCAUTOCONNECT" after RNDIS mode was set by AT+QCFG="usbnet",3 .	R07A13_01.0 02.01.002
TCP SSL	Solved the problem that memory leak occurred when unilateral and mutual authentication connection with SSL was performed.	R07A13_01.0 02.01.002
DFOTA	Solved the problem that DFOTA upgrade failed when special characters included in the HTTP URL.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that TELUS MBN could not register for VoLTE.	R07A13_01.0 02.01.002
GENERAL	Fixed the problem that AT+QWSSIDHEX could not set SSID encoding mode to default text mode.	R07A13_01.0 02.01.002
TCP/UDP	Extended AT+QICFG="window/scale" to configure TCP Window scale.	R07A13_01.0 02.01.002
PPP	Modified the range of <RI_interval> parameter in +QCFG: "ppp/sleep_ri" returned by AT+QCFG=? from (1-50) to (500-50000).	R07A13_01.0 02.01.002
GENERAL	Solved the problem that TELUS MBN could not make voice calls.	R07A13_01.0 02.01.002
FTP	Solved the problem that there was no response or an error code 603 reported during FTP upload and download.	R07A13_01.0 02.01.002
FTP	Improved FTPS implicit mode compatibility.	R07A13_01.0 02.01.002
HTTP	Solved the problem that the error code 702 (HTTP(S) timeout) may be returned after sending HTTP POST request.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that after PPP dialing was successful, USSD URC could not be received on the USB AT port after AT+CUSD=1, "***100#" was executed.	R07A13_01.0 02.01.002
HTTP	Solved the problem that AT/UART port could not work normally when AT+QHTTPSTOP was executed after HTTP request expiration.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that the default values of HSDPA returned by AT+QCFG="hsdpacat" and HSUPA returned by AT+QCFG="hsupacat" were incorrect.	R07A13_01.0 02.01.002
PHB	Fixed the problem that AT+CPBR could not read emergency call numbers from SIM card.	R07A13_01.0 02.01.002
SMS	Solved the problem that AT+QCFG="urcport/sms" could not set SMS reporting port to debug port.	R07A13_01.0 02.01.002

WIFI	Solved the problem that WIFI could not connect to the hidden SSID.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that after QBI service closed, MBIM could not work normally when it was repeatedly opened or closed.	R07A13_01.0 02.01.002
SMS	Solved the problem that the AT port could not work normally due to the execution of the AT+QCFG="sms/listmsgmap" command.	R07A13_01.0 02.01.002
FTP	Solved the problem that error code 627 returned when data was downloaded discontinuously through FTP.	R07A13_01.0 02.01.002
MQTT	Corrected the response format of AT+QMTUNS=? from +QMTSUB to +QMTUNS.	R07A13_01.0 02.01.002
FTP	Solved the problem that error code 619 may be returned when PUT file via FTP.	R07A13_01.0 02.01.002
FILE	Solved the problem that the module may not work when uploading 10K files to the SFS via AT+QFUP="SFS:10K.txt",10240 .	R07A13_01.0 02.01.002
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.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that ATT could not be activated by FIRSTNET or NDO after activating ROW.	R07A13_01.0 02.01.002
HTTP	Solved the problem that an extra +QHTTPURC: "closed" reported when enabling HTTP(S) session closing reporting through AT+QHTTPCFG="closed/ind" .	R07A13_01.0 02.01.002
GENERAL	Modify the first TMO profile to spmode.ne.jp to support TMO data transmission.	R07A13_01.0 02.01.002
HTTP	Solved the problem that AT+QHTTPGET may not send the GET request to HTTP(S) server and there may be no timeout occurred.	R07A13_01.0 02.01.002
GENERAL	Fixed the problem that the system may not respond when loading/unloading Mac driver.	R07A13_01.0 02.01.002
GENERAL	Updated goldenbin to QL_FC20_V05 for customer requirement.	R07A13_01.0 02.01.002
TCP/UDP	Solved the problem that after connecting to TCP server through AT+QIOPEN for 60 seconds, the module did not send TCP disconnection wave after AT+QICLOSE was executed.	R07A13_01.0 02.01.002
GENERAL	Disabled VICE feature for Verizon.	R07A13_01.0 02.01.002
GENERAL	Modified the value of voipMinSessionExpires to 90 for Commercial-TMO_VoLTE MBN.	R07A13_01.0 02.01.002
HTTP	Solved the problem of an error code 702 reported when there was no response from TCP server after HTTP PUT request was sent.	R07A13_01.0 02.01.002
TCP SSL	Solved the problem that there was one more empty line on the "cacertex" certificate path returned by AT+QSSLCFG="cacertex" .	R07A13_01.0 02.01.002
GENERAL	Fixed the problem that Telus VoLTE could not make VoLTE Call.	R07A13_01.0 02.01.002
GENERAL	Solved the problem that ACDB files could not be obtained by AT+QACDBLOAD? .	R07A13_01.0 02.01.002

GENERAL	Optimized the CEFS backup and restore mechanism to restore lost files.	R07A13_01.0 02.01.002
WIFI	Solved the problem that without SIM card, ECM could not work normally while FC20 was in the WIFI STA mode	R07A13_01.0 02.01.002
PPP	Solved the problem that AT port may not work normally after executing AT+CGACT=1,1 to activate the first PDP context which has been activated by default again.	R07A13_01.0 02.01.002
GENERAL	Updated TMO MBN version to 202011211.	R07A13_01.0 02.01.002
GENERAL	Optimized IMEI backup protection mechanism.	R07A13_01.0 01.01.001
NETWORK	Optimized AT command AT+QCOPS to search nearby PLMN information as much as possible.	R07A13_01.0 01.01.001
HTTP	Updated the encode_buffer size from 1024 to 2048 bytes for supporting long URL.	R07A13_01.0 01.01.001
NETWORK	Supported AT+QCOPS to search band according to the band value configured by AT+QCFG="band" .	R07A13_01.0 01.01.001
GENERAL	Solved the problem of abnormal auto activation of Rogers MBN and ROW MBN.	R07A13_01.0 01.01.001
WIFI	Solved the problem that TCP server could not be established after executing AT+QWTOCLIEN=1 .	R07A13_01.0 01.01.001
AUDIO	Solved the problem that the AT performance port could not work normally after executing AT+QRXIIR? .	R07A13_01.0 01.01.001
DTMF	Solved the problem that an URC would be reported unexpectedly when executing AT+VTS .	R07A13_01.0 01.01.001
HTTP	Improved HTTP feature under IPv6.	R07A13_01.0 01.01.001
DFOTA	Supported to report DFOTA upgrade progress after the module powered down during DFOTA upgrading.	R07A13_01.0 01.01.001
AUDIO	Solved the problem that UAC had no sound.	R07A13_01.0 01.01.001
GENERAL	Solved the problem CMAS message could not be received for ATT test case of LTE-BTR-5-4121 & 4125 & 4552 & 4127.	R07A13_01.0 01.01.001
GENERAL	Disabled ECC CALL for TMO MBN.	R07A13_01.0 01.01.001
TCP SSL	Optimized the feature of SSL.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that some special 7bit control characters (such as "@") could not be displayed normally in ASCII.	R07A13_01.0 01.01.001
QuecLocator 2.0	Solved the problem that the base station positioning server could not be configured by AT+QLBSCFG="server" .	R07A13_01.0 01.01.001
GENERAL	Fixed User Agent appears to be missing a hyphen for Verizon.	R07A13_01.0 01.01.001
GENERAL	Fixed CMAS bug for LTE-BTR-5-4118 ATT bug for not display 7bit 0x00f1, and increased extension ASCII to solve the problem.	R07A13_01.0

		01.01.001
DFOTA	Solved the problem that DFOTA package was failed to download when analyzing HTTP URL with user name and password.	R07A13_01.0 01.01.001
GENERAL	Updated GSMA TS.25 publication date.	R07A13_01.0 01.01.001
HTTP	Optimized the feature of HTTP after enabling automatically outputting HTTP(S) response header by AT+QHTTPCFG="rspout/auto",1 .	R07A13_01.0 01.01.001
GENERAL	Optimized AT command AT+QCFG="DIVCTL" to keep the length of "/nv/item_files/modem/lte/ML1/rx_tuning_chan" at 1 byte.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that AT+QFWDCLIENT may not work normally.	R07A13_01.0 01.01.001
GENERAL	Solved the problem occurred during testing GPS use cases in PTCRB certification: SUPL-2.0-con-024-2 not displayed QGPSURC characters.	R07A13_01.0 01.01.001
GENERAL	Optimized AT+QGPSCFG="outport","uartdebug" to solve the problem that the GPS URC could not output from debug port.	R07A13_01.0 01.01.001
GENERAL	Optimized AT+QWWAN command to solve the problem of file storage path error.	R07A13_01.0 01.01.001
MQTT	Fixed the module rebooting caused by MQTT receiving a large number of subscribed topics.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that WCDMA Band4 diversity were opened unexpectedly by AT+QCFG="diversity",1 .	R07A13_01.0 01.01.001
GENERAL	Optimized the history call record function.	R07A13_01.0 01.01.001
SIMCARD	Enabled invalid SIM card identification.	R07A13_01.0 01.01.001
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.	R07A13_01.0 01.01.001
WIFI	Solved the problem of failed to enable WIFI after configuring WIFI dual AP (AP0 + AP1) mode.	R07A13_01.0 01.01.001
SMS	Solved the problem that the current operator's SMS center number could not be displayed after enabling the SIM card hot-plugging function.	R07A13_01.0 01.01.001
QuecLocator 2.0	Modified parameter format for AT commands related to base station positioning locator/LBS 2.0 as AT+QLBSCFG? , AT+QLBSCFG=? and AT+QLBSCFG="token" .	R07A13_01.0 01.01.001
QuecLocator 2.0	Solved the problem that the error code returned incorrectly after executing AT+QLBS .	R07A13_01.0 01.01.001
TCP SSL	Ignored the verification for multi-level certificate chains by default in the embedded SSL protocol.	R07A13_01.0 01.01.001
NETWORK	Optimized AT+QCFG="fast_dormancy" to support fast dormancy mode 3.	R07A13_01.0 01.01.001
NETWORK	Optimized AT command AT+QCFG="lte/preferfre" to solve the problem the module may be unstable due to incorrect bandwidth parameter of AT+QCFG="lte/preferfre" .	R07A13_01.0 01.01.001

MQTT	Optimized AT command AT+QMTPUBEX to improve the module's stability after the server disconnected automatically from the module and WM has been released under the data mode.	R07A13_01.0 01.01.001
Voice Call	Optimized the three-party call function.	R07A13_01.0 01.01.001
FTP	Supported multiple server response parsing in FTP mode.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that the computer could not connect to the network after executing AT+QWWAN=1 .	R07A13_01.0 01.01.001
Voice Call	Reported DSCI when making an emergency call.	R07A13_01.0 01.01.001
GENERAL	Update ROW MBN version to 201901141.	R07A13_01.0 01.01.001
GENERAL	Update the ID of Profile5 in VZW MBN.	R07A13_01.0 01.01.001
NETWORK	Solved that problem of unable to re-initialize Home PLMN search when 313-100 SIM was registered on a 310-410 PLMN.	R07A13_01.0 01.01.001
DFOTA	Expanded AT+QFOTADL command to increase DFOTA upgrade path length.	R07A13_01.0 01.01.001
MMS	Solve the problem that MMS proxy addresses starting with 0 could be set with AT+QMMSCFG="proxy" .	R07A13_01.0 01.01.001
GENERAL	Solved the problem that ATT OMADM could not connect DM server caused by a failure of SSL handshake.	R07A13_01.0 01.01.001
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.	R07A13_01.0 01.01.001
TCP/UDP	Solved the problem that after activating PDP, the AT port may not work normally when executing AT+QIDEACT command immediately with no response.	R07A13_01.0 01.01.001
GENERAL	Solved the problem of error returned when querying NV553 after activating ATT MBN.	R07A13_01.0 01.01.001
QuecLocator 2.0	Solved the problem that the default server port (80) could not be obtained by AT+QLBSCFG? .	R07A13_01.0 01.01.001
GENERAL	Solved the problem that the SMS reporting port could not be set as the debug port by AT+QCFG="urcport/sms" .	R07A13_01.0 01.01.001
GENERAL	Updated AT command AT+CGSN to support querying IMEI number and SN number.	R07A13_01.0 01.01.001
GENERAL	Solved the problem of incorrect default value of ATX queried by AT&V .	R07A13_01.0 01.01.001
GENERAL	Modified the parameter return format of AT+QCFG="siminvalirecovery" command.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that the domain name address in IPV6 format resolved by AT+QIDNSGIP was incorrect.	R07A13_01.0 01.01.001
FILE	Solved the problem that data may lost when upload files by sending FILE related commands on UART/debug ports.	R07A13_01.0 01.01.001

GENERAL	Changed the range value returned by AT+QDAI=? from (1-4) to (1-6).	R07A13_01.0 01.01.001
GENERAL	Solved the problem of an error returned when setting SGMII by AT+QSGMIICFG="config" .	R07A13_01.0 01.01.001
GENERAL	Updated Verizon MBN version to 202004091.	R07A13_01.0 01.01.001
MQTT	Fixed module RI changed but no URC reported when sending data via MQTT protocol.	R07A13_01.0 01.01.001
GENERAL	Changed the number of attachment returned by AT+QCFG="siminvalirecovery" from 208 to (0-1).	R07A13_01.0 01.01.001
HTTP	Solved the problem that the module worked improperly after asking an HTTP request with wrong URL.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that after setting the band to a fixed value, the band value would resume to the default value after the module rebooted twice or for three times.	R07A13_01.0 01.01.001
GENERAL	Optimized the AT+QCFG="airplanecontrol" command to support setting QMI not to exit the flight mode when pulling w_disable to low.	R07A13_01.0 01.01.001
GENERAL	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.	R07A13_01.0 01.01.001
GENERAL	Solved the problem of disconnection after USB suspended and then resumed.	R07A13_01.0 01.01.001
DFOTA	Solved the problem of 502 and 520 error codes reported after rebooting the module due to powering down when DFOTA upgrade to 90%.	R07A13_01.0 01.01.001
GENERAL	Solved the problem of no sleep_ri jittered after receiving PPP data.	R07A13_01.0 01.01.001
GENERAL	Fixed the problem that the USB could not work normally when the module was rebooted for the first time after DFOTA upgrade.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that pcmclk could not be enabled by AT+QCFG="PCMCLK" .	R07A13_01.0 01.01.001
DTMF	Extended AT+QTONEDT=1 to support soft decode feature.	R07A13_01.0 01.01.001
TCP/UDP	Increased the length of domain name returned by AT+QSSLOPEN from 40 bytes to 256 bytes.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that data sent and received by the module would lose after the module connected to the DTLS server.	R07A13_01.0 01.01.001
GENERAL	Supported SMTP server's analysis of multiple responses.	R07A13_01.0 01.01.001
TCP/UDP	Extended AT+QICFG="window/scale" to configure TCP Window scale.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that the value of NV5280 set by TMO card could not take effect after the module rebooted.	R07A13_01.0 01.01.001
GENERAL	Solved the problem that TELUS MBN could not make voice calls.	R07A13_01.0 01.01.001

DFOTA	Changed DFOTA cache path.	R07A08_01.0 02.01.002
GENERAL	Optimized the file system backup restore mechanism.	R07A08_01.0 02.01.002
GENERAL	Solved the problem that the decoded CMAS message was incorrect.	R07A08_01.0 02.01.002
DFOTA	Opened the serial port for URC output at the baud rate that the customer set during the recovery process.	R07A08_01.0 02.01.002
FTP	Improved the stability of FTP.	R07A08_01.0 02.01.002
FTP	Solved the problem of serial port abnormality while returned ERROR directly after returning CONNECT via commands AT+QFTPPUT , AT+QFTPGET , AT+QFTPLIST and AT+QFTPNLST under PORT mode.	R07A08_01.0 02.01.002
RMNET	Solved the problem of data call error after executing command AT\$QCRMCall .	R07A08_01.0 02.01.002
HTTP	Solved the problem of returning +CME ERROR: 702 when executing AT commands AT+QHHTTPPOST and AT+QHHTTPPUT .	R07A08_01.0 02.01.002
SMS	Solved the problem that when CPMS was all set to SM and the SM was full, sent a message to the module and the message would be received after deleted one message.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that AT+QGPSSUPLCA testing failed under the mode of MT SMS.	R07A08_01.0 01.01.001
GENERAL	Optimized RF Factory Test feature.	R07A08_01.0 01.01.001
LowPower	Optimized low power performance at 85°C.	R07A08_01.0 01.01.001
TCP/UDP	Optimized the module stability when receiving more than 751 bytes under TCP hex mode.	R07A08_01.0 01.01.001
WIFI	Supported bandwidth 40/80 Hz for WiFi 802.11AN/802.11AC.	R07A08_01.0 01.01.001
TCP/UDP	Supported to report the data length also when TCPIP reporting URC.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that no response returned or URC for manufacturer command when executed AT+CMEE=0 .	R07A08_01.0 01.01.001
TCP/UDP	Optimized the stability of TCPIP function.	R07A08_01.0 01.01.001
LowPower	Solved the problem of current consumption when module was in sleep mode.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that LTE uplink throughput could not be restricted by thermal engine.	R07A08_01.0 01.01.001
GENERAL	Updated ROW / ATT of MBN to the latest version.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that USB could not worked normally after configuring rndis mode.	R07A08_01.0 01.01.001

TCP/UDP	Solved the problem that if TCP half-closed, error returned when executing AT+QISEND=0,0 .	R07A08_01.0 01.01.001
GENERAL	Updated VoLTE-ATT MBN to version 0x0501033C.	R07A08_01.0 01.01.001
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 .	R07A08_01.0 01.01.001
NETWORK	Solved the problem that there was no LTE result when executing AT+QCOPS=7,0 and AT+QCOPS=4,0 .	R07A08_01.0 01.01.001
NETWORK	Changed the Roaming state to home service when 313-100 SIM was registered on a 310-410 PLMN.	R07A08_01.0 01.01.001
GENERAL	Solve the problem that the module would automatically download the ephemeris and report URC unexpectedly.	R07A08_01.0 01.01.001
AUDIO	Solved the problem of low WB downlink volume.	R07A08_01.0 01.01.001
GENERAL	Solved the low probability problem that /data changed into read-only state after rebooting multiple times.	R07A08_01.0 01.01.001
AUDIO	Solved the problem that DTMF plays without sound when in call connected state.	R07A08_01.0 01.01.001
AUDIO	Solved the problem that voice over USB feature was not available.	R07A08_01.0 01.01.001
DFOTA	Solved the problem that the error code DELTA_UPDATE_CHECK_FILE_FAILED and IP_PREVIOUS_UPDATE_FAILED of US vzw were not reported after FOTA ungraded.	R07A08_01.0 01.01.001
GENERAL	Optimized the process of fumo running after powered off and rebooted.	R07A08_01.0 01.01.001
GENERAL	Solved the low probability problem that MMS could not be received.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that the ME memory ran slowly led to OMADM types of WAP PUSH SMS could not being received.	R07A08_01.0 01.01.001
GENERAL	Updated connmo.tre for Verizon OMA.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that FGI bit20 was not supported by modules.	R07A08_01.0 01.01.001
NETWORK	Solved the problem that client could not connect to network after executing AT+QWWAN=1 .	R07A08_01.0 01.01.001
GENERAL	Updated hVoLTE-Verizon MBN to version 0x0501014.	R07A08_01.0 01.01.001
DFOTA	Supported HTTPs protocol download in the process of FOTA upgrading.	R07A08_01.0 01.01.001
GENERAL	Supported qfwd socket AT commands: AT+QFWDCLIENT , AT+QFWDSEVER , AT+QFWDCLOSE , AT+QFWDSEND and AT+QFWDRECV .	R07A08_01.0 01.01.001

TCP SSL	Extended the command AT+QSSLCFG="cacertex" to add multiple CA certificates.	R07A08_01.0 01.01.001
MQTT	Corrected the reported MSG_ID when MQTT sending the timeout message.	R07A08_01.0 01.01.001
TCP SSL	Optimized the command AT+QSSLCFG to support the TLS 1.3 protocol.	R07A08_01.0 01.01.001
GENERAL	Updated CEFS to version V00020.	R07A08_01.0 01.01.001
QMI	Solved the problem that the network card could not work after switching SIM card and first rebooting.	R07A08_01.0 01.01.001
RMNET	Solved the problem that error occurred after executing command AT\$QCRMCall .	R07A08_01.0 01.01.001
GENERAL	Solved the problem that the module would automatically download the ephemeris and report URC unexpectedly.	R07A08_01.0 01.01.001
TCP/UDP	Solved the problem that there was additional 32 bytes reported of DATA_LENGTH when UDP server was connected.	R07A08_01.0 01.01.001
TCP/UDP	Supported to report DATA LENGTH also when TCPIP reported URC under the buffer mode.	R07A08_01.0 01.01.001
GENERAL	Optimized GPS performance.	R07A08_01.0 01.01.001
GENERAL	1. Controlled SAR on and off through GPIO pins. 2. Optimized AT+QCFG="sarcfg" to configure maximum SAR power and falling gradient for specific band of LTE/WCDMA.	R07A08_01.0 01.01.001
DFOTA	Optimized DFOTA upgrade.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that the OMA-DM FUMO could not achieve looping upgrade.	R07A08_01.0 01.01.001
GENERAL	Enabled AT command AT+QDIAGPORT .	R07A08_01.0 01.01.001
SIMCARD	Optimized AT command AT+QSIMAUTH .	R07A08_01.0 01.01.001
DFOTA	Solved the problem that there was SDCARDSTART and SDCARDEND URC reported unexpectedly when executing AT+QFOTADL .	R07A08_01.0 01.01.001
DFOTA	Solved the problem that saving the uploaded file to the local results in insufficient usrdta space when DFOTA upgrading.	R07A08_01.0 01.01.001
FTP	Solved the problem that an error would be reported unexpectedly when the FTP transmission was not continuous.	R07A08_01.0 01.01.001
TCP SSL	Solved the problem that subcommands AT+QSSLCFG="dtls" and AT+QSSLCFG="dtlsversion" was lacked when executing AT+QSSLCFG=? .	R07A08_01.0 01.01.001
WIFI	Solved the problem of WiFi configuration lost after modules rebooted.	R07A08_01.0 01.01.001
GENERAL	Updated hVoLTE-Verizon MBN to version 0x05010141.	R07A08_01.0 01.01.001

GENERAL	Solved the problem that the CPU rate of thermal process was too high.	R07A08_01.0 01.01.001
TCP/UDP	Solved the problem that when multiple TCP connection was established, it was abnormally to loop QIRD quickly.	R07A08_01.0 01.01.001
DFOTA	Solved the problem that the error URC was returned in the process of DFOTA local upgrade.	R07A08_01.0 01.01.001
NETWORK	Solved the problem that AT performance port could not work normally caused by SIM card service restriction after PPP dialing when the Telecom IoT card was inserted.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that OMA-DM version could not be changed according to IMSI after switching from AT+CFUN=0 to AT+CFUN=1 .	R07A07_01.0 01.01.001
AUDIO	Fixed the problem that the incoming call has no ringtone.	R07A07_01.0 01.01.001
GENERAL	Improved low temperature performance.	R07A07_01.0 01.01.001
GENERAL	Optimized AT command AT+QGPSXTRATIME to solve the issue that when UTC time was converted to GPS time, it would increase by 5 hours.	R07A07_01.0 01.01.001
GENERAL	Solved the problem of slow USB loading.	R07A07_01.0 01.01.001
GENERAL	Turned off Qualcomm USB load script files under the Recovery mode, and loaded USB via ql_usbcfg.	R07A07_01.0 01.01.001
GENERAL	Optimized AT command AT+QGPSSUPLCA to solve the return error.	R07A07_01.0 01.01.001
GENERAL	Supported to update operator MBN after upgrading module FW.	R07A07_01.0 01.01.001
GENERAL	Disabled lighttpd and QCMAP web server.	R07A07_01.0 01.01.001
GENERAL	Optimized the parameter partition (EFS2/EFS2APPS) restore mechanism.	R07A07_01.0 01.01.001
NETWORK	Solved the problem that AT command AT+QNWINFO could not support B66/B71 and corresponding frequency.	R07A07_01.0 01.01.001
TCP SSL	Solved the issue of FTPS connection failure.	R07A07_01.0 01.01.001
NETWORK	Solved the problem that AT commands AT+QCFG="NWSCANMODE" and AT+QCFG="NWSCANMODEEX" could not support setting feature.	R07A07_01.0 01.01.001
GENERAL	Solved the issue of no return value queried via manufacturer command when executed AT+CMEE=0 .	R07A07_01.0 01.01.001
GENERAL	Solved the misspelling of USB descriptions	R07A07_01.0 01.01.001
DFOTA	Solved the problem that USB could not be loaded after DFOTA upgraded.	R07A07_01.0 01.01.001
AUDIO	Solved the issue of no sound on pcm slave mode.	R07A07_01.0 01.01.001

AUDIO	Supported pcm slot to be configurable.	R07A07_01.0 01.01.001
GENERAL	Optimized modules stability during module shutdown.	R07A07_01.0 01.01.001
GENERAL	Fixed the problem that the default return value of AT+QLWWANCID was 0, and added the AT command AT+QLPING to support LAN network.	R07A07_01.0 01.01.001
DFOTA	Optimized DFOTA upgrading.	R07A07_01.0 01.01.001
TCP/UDP	Improved module stability when switching data access mode.	R07A07_01.0 01.01.001
GENERAL	Solved the problem that changing APN values from uppercase to lowercase by Replace command in OMA could not take effect in the real time.	R07A07_01.0 01.01.001
GENERAL	Updated the TS25 PLMN list.	R07A07_01.0 01.01.001
GENERAL	Solved the problem that the title setting to null could also be successful not failed.	R07A07_01.0 01.01.001
GENERAL	Solved the problem that the value of man and model could not be changed by AT command AT+QODM="hostdevice" .	R07A07_01.0 01.01.001
NETWORK	Solved the problem that the cell info could not searched by AT command AT+QCOPS .	R07A07_01.0 01.01.001
GENERAL	Improved module stability when executing AT+QMMSEDT=5,1 .	R07A07_01.0 01.01.001
GENERAL	Solved the problem that no error report when the parameter of AT+QMMSCFG="sendparam" was missing.	R07A07_01.0 01.01.001
MQTT	Solved the problem that the module could not receive more than 1024 bytes of data sent by the MQTT server.	R07A07_01.0 01.01.001
GENERAL	Solved the problem of returned format error when executed AT command AT+CCLK? .	R07A07_01.0 01.01.001
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.	R07A07_01.0 01.01.001
GENERAL	Solved the dsi_init timeout time in ql_manager was insufficient caused ql_manager_server abnormal.	R07A07_01.0 01.01.001
SIMCARD	Set that when the SIM card was locked in PUK2, allowed to execute AT+CPIN=<PUK2>,<new PIN2> to unlock PUK2.	R07A07_01.0 01.01.001
SIMCARD	Submitted the command of AT+QCFG="sim/recovery" and AT+QLOCI .	R07A07_01.0 01.01.001
MQTT	Solved the problem that the module could not receive more than 1024 bytes of data sent by the MQTT server.	R07A06_01.0 01.01.001
NETWORK	Supported cell blacklist function when RRC access failure reached a certain condition.	R07A06_01.0 01.01.001
GENERAL	Solve the problem that could not release the IP when used the AT+QODM="comm",2,"0" to kill Quectel_QCMAP_CLI,.	R07A06_01.0 01.01.001
GENERAL	Fixed the issue that APN could not be automatically updated after switching between different ATT cards (VOLTE/NDO/FirstNET).	R07A06_01.0

		01.01.001
PPP	Solved the problem that the host could not establish PPP under the GSM network.	R07A06_01.0 01.01.001
GENERAL	Fixed problem of TMO test case L_IMS_VoLTE_6839_1.	R07A06_01.0 01.01.001
GERERAL	Disabled EDRX function.	R07A06_01.0 01.01.001
SMS	Solved the problem that the SMS content would be garbled when used AT+QCMGS to send long SMS to itself under Verizon network.	R07A06_01.0 01.01.001
SMS	Solved the problem that the SMS content would be incorrect when queried via AT+QCMGR under Verizon network.	R07A06_01.0 01.01.001
GENERAL	Optimized file system protection mechanism.	R07A06_01.0 01.01.001
AUDIO	Optimized the codec loading driver timing.	R07A06_01.0 01.01.001
AUDIO	Optimized AT command AT+QAUDCFG="encgain" .	R07A05_01.0 01.01.001
NETWORK	Modified the tuner LTE band12, band13, band14 corresponding GPIO level configuration for bluebird GRFC control.	R07A05_01.0 01.01.001
MQTT	Synchronized MQTT function.	R07A05_01.0 01.01.001
DFOTA	Optimized DFOTA process.	R07A05_01.0 01.01.001
NETWORK	Fixed the problem that no service got from CEREGL/CGREG/CREG while module was actually registering network after executing AT+COPS=2 and AT+COPS=1,2,"plmn" .	R07A05_01.0 01.01.001
NETWORK	Fixed stuck issue when APN settings was set for thousands of times without stopping.	R07A05_01.0 01.01.001
NETWORK	Fixed the issue that when TCP/UDP connected, the module would run out of memory when under weak signal.	R07A05_01.0 01.01.001
SMS	Solved the problem that when AT+QCFG="ltesms/format",0 , sent SMS to the international type number (+1xxxx) under Verizon network, the other party could not receive it.	R07A05_01.0 01.01.001
NETWORK	Solved the issue that scanning flag was not cleared when executing AT+QCOPS returned error.	R07A05_01.0 01.01.001
AUDIO	Optimized below AT commands: AT+QAUDCFG="alc5616/dlgain" , AT+QAUDCFG="alc5616/ulgain" .	R07A05_01.0 01.01.001
TCP SSL	Modified SSL to support TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384.	R07A05_01.0 01.01.001
WIFI	Optimized AT command AT+QWBCAST and AT+QWMOCH to solve response error.	R07A05_01.0 01.01.001
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.	R07A05_01.0 01.01.001

TCP/UDP	Solved the problem that when established multiple TCP connection, it was abnormally to loop QIRD quickly.	R07A05_01.0 01.01.001
GENERAL	Enabled the features of the OMA-DM automatic upgrade and automatically reporting the upgrade result.	R07A05_01.0 01.01.001
GENERAL	Solved the issue that if module powered off during OMA downloading, OMA could not continue downloading after power on by executing AT+QODM="dme",2,"ui" .	R07A05_01.0 01.01.001
GENERAL	Changed APN of profile 1 to IPV4V6 for T-Mobile.	R07A04
GENERAL	Supported Emergency Callback Mode for Verizon.	R07A04
GENERAL	Updated MBN file of T-Mobile operator to support VoLTE feature.	R07A03
GENERAL	Changed Manufacture of USB description to Quectel. Change Product Info of USB description to EC25-AF.	R07A03
GENERAL	Created new rat_mask to support B66 and B71 capability.	R07A03
QMI	Saved Username/Password from QMI_WDS_CREATE_PROFILE and QMI_WDS_MODIFY_PROFILE_SETTINGS.	R07A02
GENERAL	Disabled the behavior to write EF_START_HFC frequently.	R07A02
NTP	Removed the retry mechanism when NTP can't get response from NTP server in 60s.	R07A02
FTP	Supported to handle response code 125 from FTP server during downloading.	R07A02
AUDIO	Changed default value of AT+QSIDET to 0.	R07A02
GENERAL	Extended AT+QCFG="band" to support to query and configure band index larger than 64, like B71.	R07A02
GENERAL	Extended AT+CEER command to configure format of +CEER as numeric code or string code.	R07A02
GENERAL	Changed default value of AT+CEER to 0 and the format as +CEER: <locationID>,<cause>.	R07A02
GENERAL	Fixed issue that neighbor cell list is too much to be shown in AT+QENG="neighbourcell" command in some case.	R07A02
NETWORK	Changed the RSSI of +QCSQ URC to the same as response of AT+QCSQ command.	R07A02

5. Known Issues

Item/Category	Brief Description
/	/

6. Functions

Basic Function								
SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	FILE ¹⁾
Y	Y	N	N	N	Y	N	Y	Y
Protocol Function								
QMI	TCP/UDP	PPP	FTP	HTTP	NITZ	NTP	TCP SSL	MMS ²⁾
Y	Y	Y	Y	Y	Y	Y	Y	Y
SMTP	PING	SMTPS	HTTPS	MQTT				
Y	Y	Y	Y	Y				
Special Function								
SIM Detection	DFOTA	Quec Locator 2.0 ³⁾	ECM	MBIM	Dual UART	TTS	DTMF ⁴⁾	UAC
Y	Y	Y	Y	Y	Y	Y	Y	Y
RNDIS	WIFI	SD	LowPower	RMNET	BT ⁵⁾			
Y	Y	Y	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⁾ 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.
6. ⁴⁾ Supports DTMF decoding only.
7. ⁵⁾ Supports BLE, SPP and HFG.
8. 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_V6.0

For Linux,
QFirehose Tool: QFirehose_Linux_Android_V1.4.9

USB Driver: Quectel_Linux_USB_Serial_Option_Driver_V1.0

Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.1

QLog Tool: QLog_Linux_Android_V1.5.12

QMI_WWAN Driver: Quectel_Linux&Android_QMI_WWAN_Driver_V1.2.1

GobiNet Driver: Quectel_Linux&Android_GobiNet_Driver_V1.6.3

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