

EC25-AF-FD Release Notes

LTE Standard Module Series

Rev: EC25-AF-FD_Firmware_Release_Notes_V0710_01.007.01.007

Date: 2022-11-29



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1. Preamble

This document provides the Release Notes for EC25-AF-FD firmware version **EC25AFFDR07A10M4G_01.007.01.007**. It describes major changes compared to EC25-AF-FD firmware version **EC25AFFDR07A10M4G_01.006.01.006**.

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
NETWORK	Relevant technical controls have been carried out to restrict normal network registration in regions such as RUS and IRN, thus ensuring that the module can be used only for civilian applications.	R07A10_01.007.01.007
WIFI	Added AT+QWIFICON to query the network connection status of WIFI.	R07A10_01.007.01.007
GENERAL	Sent URC +QODM: "DME",0,APN PROFILE 3,apnname to notify the host of 3rd APNs changes of Verizon OMADM.	R07A10_01.007.01.007
GENERAL	Added AT+QCPUSN to query CPU serial number.	R07A10_01.007.01.007
GENERAL	Added AT+QCFG="call_profile" to set profiles used by ql_manager.	R07A10_01.007.01.007
GENERAL	Added AT+QMAP="LANIP" to query or set the default DHCP address pool for LAN interface.	R07A10_01.007.01.007
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 	R07A10_01.006.01.006

	traffic data of WIFI AP.	
GENERAL	Added AT+QCFG="gatewayset" and AT+QCFG="netmaskset" to set gateway address and subnet mask respectively.	R07A10_01. 006.01.006
DFOTA	Added AT+QFOTATIMECFG to set DFOTA expiration time.	R07A10_01. 005.01.005
FILE	Added AT+QFMov to support moving a file.	R07A10_01. 005.01.005
NETWORK	Added AT+QNWCFG="rej_cause_7_mapping" to control whether to map the network rejection reason value #7.	R07A10_01. 005.01.005
SIMCARD	Added AT+QSIMCFG="disable_physim" to enable or disable SIM card.	R07A10_01. 005.01.005
TCP SSL	Added AT+QSSLCFG="ignorecertitem" to solve the problem of SSL disconnection.	R07A10_01. 005.01.005
WIFI	Added AT+QWIFICFG="datarate" and AT+QWIFICFG="traffictransf" to query WIFI rate and traffic respectively.	R07A10_01. 005.01.005
GENERAL	Supported USCC MBN.	R07A10_01. 005.01.005
GENERAL	Enabled xlat feature on T-Mobile MBN.	R07A10_01. 005.01.005
GENERAL	Extended AT+QCFG="ledmode" : 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.	R07A10_01. 005.01.005
GENERAL	Added AT+QUICKSHUTDOWN to set the fast shutdown.	R07A10_01. 005.01.005
GENERAL	Supported T-Mobile SIM card (311-882).	R07A10_01. 004.01.004
GENERAL	Supported qorvo 56030 PA	R07A10_01. 004.01.004
NETWORK	1. Extended the AT+QOPSCFG="displaybw" to control whether AT+QOPS displays the bandwidth under LTE. 2. Extended the AT+QOPS to support displaying bandwidth under LTE.	R07A10_01. 003.01.003
TCP/UDP	Added AT+QCFG="TCP/SendMode" to configure TCP sending mode.	R07A10_01. 002.01.002
GENERAL	Added AT+QLWCFG="lwm2m_enable" to enable and disable LwWM2M for specific operators.	R07A10_01. 002.01.002
GENERAL	Under Verizon, supported sending UPDATE message after the module powered down or AT+CFUN=1,1 was executed.	R07A10_01. 002.01.002
GENERAL	Limited LTE band to B4&B13 for Verizon.	R07A10_01. 002.01.002
GENERAL	Supported Data only Rogers MBN.	R07A10_01. 002.01.002

BT	Added Bluetooth function (SPP, BLE and HFG) and AT+QCFG="spi/set" to write a mark in rawdata to control the initialization of GPIO/SPI6/UART6.	R07A10_01.001.01.001
DFOTA	Added AT+QFOTADL=<url>,"down_to_ufs",<local_file_name>[,<username>,<password>] to download the FTP file to local UFS directory.	R07A10_01.001.01.001
MQTT	Added AT+QMTCFG="protocol/check" to configure whether to check MQTT header information.	R07A10_01.001.01.001
MMS	Added AT+QCFG="mms_rec_control" to control whether to save the received MMS.	R07A10_01.001.01.001
NETWORK	Added AT+QCFG="cops_control" to control AT+COPS to scan band, not affecting the band scan of AT+QCFG="nwscanmodeex" .	R07A10_01.001.01.001
QuecLocator2.0	Added AT+QLBSCFG="contextid" to configure the QuecLocator context ID.	R07A10_01.001.01.001
WIFI	Supported LTE and WIFI coexistence mechanism.	R07A10_01.001.01.001
WIFI	Added AT+QWIFICFG="dongle_mac" to get the MAC address connecting to the ECM/RNDIS device.	R07A10_01.001.01.001
GENERAL	Extended AT+QCFG="cmux/urcport" to support turning off CMUX port to report URC.	R07A10_01.001.01.001
GENERAL	Supported using AT+CSCS with no SIM card inserted.	R07A10_01.001.01.001
GENERAL	Added AT+QGSN to get module GSN number and AT+QIMI to get IMEI number.	R07A10_01.001.01.001
GENERAL	Added AT+QFORMATUSRDATA to format usrdata ubi.	R07A10_01.001.01.001
GENERAL	Supported outputting \$PQXMI NMEA sentences, and not outputting \$PQXMI sentences by default.	R07A10_01.001.01.001
GENERAL	Added AT+QCFG="usbauto" to control USB network card to automatically adapt to Windows, Linux, macOS without a driver.	R07A10_01.001.01.001
GENERAL	Supported Telus data only MBN.	R07A10_01.001.01.001
GENERAL	Added AT+QCFG="secbootstat" to get whether the secboot is enabled.	R07A10_01.001.01.001
GENERAL	Supported Telus-consumer MBN.	R07A10_01.001.01.001
GENERAL	Supported to report all URC via AT+QURCCFG="urcport","all" .	R07A09_01.001.01.001
GENERAL	Supported socket data forward and added related AT commands: AT+QFWDCLIENT , AT+QFWDSEVER , AT+QFWDCLOSE , AT+QFWDSEND and AT+QFWDRECV .	R07A09_01.001.01.001
NETWORK	Added AT+QDISABLERETRY .	R07A09_01.001.01.001
DFOTA	Added HTTP DFOTA to parse URL with type of http://user:password@www.baidu.com .	R07A09_01.

		001.01.001
GENERAL	Added AT+QCFG="fast/poweroff" .	R07A09_01. 001.01.001
GENERAL	Added AT+QCFG="qoos" .	R07A09_01. 001.01.001
SMS	Added AT+QCFG="sms_control" to control SMS sending and reception.	R07A09_01. 001.01.001
TCP SSL	Added AT+QSSLRECV to read the remaining data.	R07A09_01. 001.01.001
GENERAL	Supported to report URC to MCU when thermal mitigate level was up to 3.	R07A09_01. 001.01.001
NETWORK	Added AT+QEGPAPN to query the actual APN and the configured APN.	R07A09_01. 001.01.001
GENERAL	Added AT+QFWDCFG="urc_with_len" to control the reporting format and behavior of URC.	R07A09_01. 001.01.001
QuecLocator2.0	Added AT+QLBSEX to enter the cell parameter for positioning.	R07A09_01. 001.01.001
NETWORK	Added the function of preferential registration to the network for the specified LTE band.	R07A09_01. 001.01.001
NETWORK	Added jamming detection function.	R07A09_01. 001.01.001
GENERAL	Added class 6 APN for Verizon.	R07A09_01. 001.01.001
TCP SSL	Added AT+QSSLCFG="alpn" to set SSL ALPN.	R07A09_01. 001.01.001
GENERAL	Added AT+QCFG="wakeuin/level" .	R07A09_01. 001.01.001
TCP SSL	Added AT+QSSLCFG="session_cache" to optimize HTTPS connection.	R07A09_01. 001.01.001
GENERAL	Added AT+QOPS .	R07A09_01. 001.01.001
NETWORK	Added AT+QRETRYCTL to control attachment request according to rogers back off mechanism.	R07A09_01. 001.01.001
GENERAL	Added AT+QSIMCHK .	R07A09_01. 001.01.001
GENERAL	Added AT+QSIMWRFREQ and AT+QSIMVOL .	R07A09_01. 001.01.001
NETWORK	Added 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.	R07A09_01. 001.01.001
NETWORK	Added AT+QICSGPEH .	R07A08_01. 002.01.002
NETWORK	Supported to report ESM/EMM/CP/GMM/MM cause through URC and added AT+QCFG="urc_cause_support" to enable or disable	R07A08_01. 002.01.002

	this feature.	
QuecLocator2.0	Added AT+QLBSCFG="latOrder" .	R07A08_01. 002.01.002
DFOTA	Added the feature of checking DFOTA package legality.	R07A08_01. 002.01.002
TCP/UDP	Added AT+QCFG="tcp/windowsize" .	R07A08_01. 002.01.002
PPP	Added AT+QCFG="ppp/sleep_ri" .	R07A08_01. 002.01.002
GENERAL	Added AT+QCFG="iprulectl" .	R07A08_01. 002.01.002
NETWORK	Added AT+QGPAPN .	R07A08_01. 002.01.002
WIFI	Added AT+QWIFICFG="version" .	R07A08_01. 002.01.002
NETWORK	Added AT+QRRCCONSTATE .	R07A08_01. 002.01.002
GENERAL	Added sec partition for secboot.	R07A08_01. 002.01.002
TCP SSL	Added AT+QSSSEND=0,0 to query the cache status of the AT+QSSSEND .	R07A08_01. 001.01.001
GENERAL	Added AT+QCFG="bip/auth" .	R07A08_01. 001.01.001
DFOTA	Supported HTTPS protocol download in the process of DFOTA upgrading.	R07A08_01. 001.01.001
GENERAL	Supported socket data forward and added related AT commands: AT+QFWDCLIENT , AT+QFWDSENDER , AT+QFWDRECV , AT+QFWDSEND , AT+QFWDRECV .	R07A08_01. 001.01.001
GENERAL	Added AT+QCFG="fast_dormancy" .	R07A08_01. 001.01.001
GENERAL	Added AT+CCHO/AT+CCHC/AT+CGLA .	R07A08_01. 001.01.001
GENERAL	Added URC for FUMO pkg checking.	R07A08_01. 001.01.001
SIMCARD	Added AT+QSIMAUTH .	R07A08_01. 001.01.001
QuecLocator2.0	Supported the positioning function of AT+QLBS .	R07A08_01. 001.01.001
GENERAL	Added AT+QCFG="usbmode" to query USB port status and automatically reported the status to main UART.	R07A08_01. 001.01.001
GENERAL	Added AT+QIACTEX .	R07A08_01.

		001.01.001
GENERAL	Added AT+QCFG="lpm/dataind" to enable the wake-up function conditionally.	R07A08_01. 001.01.001
GENERAL	Added DTLS function.	R07A08_01. 001.01.001
GENERAL	Added AT+QIDEACTEX .	R07A08_01. 001.01.001
MQTT	Added AT+QMTCFG="willex" to configure will_msg.	R07A07_01. 002.01.002
CMUX	Supported CMUX feature.	R07A07_01. 002.01.002
AUDIO	Disabled the feature of Voice.	R07A07_01. 001.01.001
GENERAL	Added AT+QGPSCFG="fixfreq" .	R07A07_01. 001.01.001
AUDIO	Added AT+QAUDCFG="nau8810/config" .	R07A06
GENERAL	Added AT+QODM="fumo" .	R07A06
GENERAL	Added AT+QODM="dme" .	R07A06
TCP SSL	Added AT+QSSLCFG="clientkey" .	R07A05
GENERAL	Added subcommand AT+QCFG="divctl" .	R07A05
RMNET	Added AT+QCFG="dhcppktr" to Disable/Enable DHCP server on module side when using Gobinet or QMI_WWAN driver. DHCP server is enabled by default.	R07A03
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+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	Only supported LTE B4/B13 when inserting Verizon SIM card.	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
HTTP	Optimized the problem that the error code 702 was reported in a small probability when HTTPS files were uploaded.	R07A10_01.0 07.01.007
MQTT	Fixed the problem that MQTT PINGREQ packet will still be sent after AT+QMTCFG="keepalive",0 was set.	R07A10_01.0 07.01.007
MQTT	Fixed the problem that URC +QMTRECV could not be reported.	R07A10_01.0 07.01.007
NETWORK	Fixed the problem that the result returned by the AT+QCSQ was an invalid value.	R07A10_01.0 07.01.007
NETWORK	Fixed the problem that the network could not be attached to because AT+QICSGP repeatedly set the parameters for more than 32 times.	R07A10_01.0 07.01.007
SMTP	Solved the problem of slow sending 10 M files for SMTP.	R07A10_01.0 07.01.007
TCP/UDP	Optimized UDP IPv6 addresses display.	R07A10_01.0 07.01.007
WIFI	Fixed the problem that the WIFI name did not match the current successfully connected WIFI when using AT+QWIFICFG="ssid" to set the name in STA mode.	R07A10_01.0 07.01.007
WIFI	Fixed the problem of returning EROOR when using AT+QWIFICFG="ssid" in AP0 and AP1 mode.	R07A10_01.0 07.01.007
GENERAL	Fixed the problem that ep could not send data when the USB phy is abnormal in low probability.	R07A10_01.0 07.01.007
GENERAL	Optimized AT+CUSD .	R07A10_01.0 07.01.007
GENERAL	Fixed the device report the wrong emm_status cause for ptc4.2.5.2.	R07A10_01.0 07.01.007
GENERAL	Fixed the problem that no POWERED DOWN URC reported after AT+QPOWD=1 was executed to power off the module when AT+QCFG="urc/delay",1 was set.	R07A10_01.0 07.01.007
GENERAL	Solved the problem that AT+QTEMP may not respond sometimes.	R07A10_01.0 07.01.007
GENERAL	Modified the default Windows Size of TCP Client to 45 K bytes.	R07A10_01.0 07.01.007
FILE	Solved the problem that when uploading files by executing AT+QFUPL , the module would restart if the file name contained "\" and "/".	R07A10_01.0 06.01.006
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.	R07A10_01.0 06.01.006
SMTP	Optimized the recipients display of SMTP, and fixed the problem that	R07A10_01.0

	more contacts cannot be viewed in the content of sent emails.	06.01.006
GENERAL	Fixed the problem that cannot be queried and set normally through AT+ODIS and AT+QLWCFG="hostdevice" .	R07A10_01.0 06.01.006
GENERAL	Fixed the problem that AT+CPOL? could not be used normally on the main serial port.	R07A10_01.0 06.01.006
GENERAL	Optimized the problem of frequent reading and writing of LWM2M EFS.	R07A10_01.0 06.01.006
GENERAL	Fixed the problem that the parameters <cellid> and <tac> would not be output by AT+CGREG with low probability.	R07A10_01.0 06.01.006
GENERAL	Optimized back-off algorithm of Rogers operator.	R07A10_01.0 06.01.006
DFOTA	Solved the problem that error code 502 was reported during DFOTA upgrade.	R07A10_01.0 05.01.005
HTTP	Solved the problem that error code 702 was returned at AT+QHTTPPOSTFILE to upload files.	R07A10_01.0 05.01.005
HTTP	Fixed the problem that the module was unstable after receiving RST during HTTPS handshake.	R07A10_01.0 05.01.005
SMS	Solved the problem that SMS was abnormal after Bluetooth was turned on.	R07A10_01.0 05.01.005
TCP SSL	Solved the problem of no RI pin pulling when data reported in SSL client transparent transmission mode.	R07A10_01.0 05.01.005
TCP SSL	Solved the problem of SSL server connection failure due to incorrect SSL verification server certificate items.	R07A10_01.0 05.01.005
WIFI	Updated WIFI firmware.	R07A10_01.0 05.01.005
WIFI	Solved the problem of network priority conflict when WIFI and LTE coexisted.	R07A10_01.0 05.01.005
GENERAL	Solved the problem of CVE-2021-31698.	R07A10_01.0 05.01.005
GENERAL	Set voice centric for Verizon MBN.	R07A10_01.0 05.01.005
GENERAL	Set the ROW MBN profile1 to null and profile3 APN name to SOS APN name.	R07A10_01.0 05.01.005
GENERAL	Optimized Full Reg and Reg Update solutions for Verizon.	R07A10_01.0 05.01.005
GENERAL	Solved the problem that USB DM port may be abnormal sometimes.	R07A10_01.0 05.01.005
GENERAL	Modified IMS configuration parameters for Rogers MBN.	R07A10_01.0 05.01.005
GENERAL	Solved the problem that there was an extra \r in the NMEA sentence after AT+CFUN=1,1 was executed.	R07A10_01.0 05.01.005
GENERAL	Solved the problem that AT+ODIS failed to set.	R07A10_01.0 05.01.005

GENERAL	Solved the problem that AT performance port could not work normally after AT+COPS execution.	R07A10_01.0 05.01.005
TCP SSL	Solved the problem of no RI pin pulling when data reported in SSL client transparent transmission mode.	R07A10_01.0 04.01.004
GENERAL	Integrated Verizon SUPL Certificates in Verizon MBN.	R07A10_01.0 04.01.004
GENERAL	Fixed CVE-2021-31698.	R07A10_01.0 04.01.004
GENERAL	Solved the problem of abnormal USB product name displayed during the whole package upgrade.	R07A10_01.0 03.01.003
AUDIO	Solved the problem that audio recording could not work normally after AT+QMIC set the gain of MIC.	R07A10_01.0 02.01.002
MQTT	Solved the problem of failure to connect to some servers caused by the inability to enable MQTT SNI.	R07A10_01.0 02.01.002
TCP/UDP	Added AT+QICFG="send/auto" to support setting the content of the keep-alive packet.	R07A10_01.0 02.01.002
GENERAL	Disabled fast dormancy feature for T-Mobile.	R07A10_01.0 02.01.002
GENERAL	Optimized AT+QLWCFG="startup" to turn on/off LwM2M for all operators.	R07A10_01.0 02.01.002
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.	R07A10_01.0 02.01.002
GENERAL	Solved the problem that AT+QDAI failed to set long and short frames.	R07A10_01.0 02.01.002
GENERAL	Solved the problem that after switching AT+CFUN=0/1 , the APN type of "attm2mglobal" was changed from IPV4V6 to IPV4 after AT&T was activated and the module registered to the network successfully.	R07A10_01.0 02.01.002
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+QWTTTS 5. AT+QLDTMF	R07A10_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%.	R07A10_01.0 01.01.001
DFOTA	Solved the problem that DFOTA upgrade failed when special characters included in the HTTP URL.	R07A10_01.0 01.01.001
DFOTA	Supported using the fixed baud rate set before the upgrade during DFOTA upgrade.	R07A10_01.0 01.01.001
DFOTA	Solved the problem that the module could not report the DFOTA upgrade result to the Verizon server after the OMA-DM DFOTA	R07A10_01.0 01.01.001

	upgrade ended.	
FTP	Solved the problem that error code 627 returned when data was downloaded discontinuously through FTP.	R07A10_01.0 01.01.001
FTP	Solved the problem that error code 619 may be returned when PUT file through FTP.	R07A10_01.0 01.01.001
FTP	Solved the problem of timeout error (error code 609 returned) when executing AT+QFTPOPEN to log in to the FTP(S) server.	R07A10_01.0 01.01.001
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.	R07A10_01.0 01.01.001
HTTP	Solved the problem that an extra +QHTTPURC: "closed" reported when enabling HTTP(S) session closing reporting through AT+QHTTPCFG="closed/ind" .	R07A10_01.0 01.01.001
HTTP	Solved the problem that AT+QHTTPGET may not send the GET request to HTTP(S) server and there may be no timeout occurred.	R07A10_01.0 01.01.001
HTTP	Solved the problem of an error code 702 reported when there was no response from TCP server after HTTP PUT request was sent.	R07A10_01.0 01.01.001
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 1 M.	R07A10_01.0 01.01.001
MQTT	Corrected the response format of AT+QMTUNS=? from +QMTSUB to +QMTUNS.	R07A10_01.0 01.01.001
MQTT	Solved the problem that the MQTT disconnected when receiving the message with QoS level 2 subscribed successfully.	R07A10_01.0 01.01.001
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.	R07A10_01.0 01.01.001
NETWORK	Change the range of SINR value returned by AT+QENG="SERVINGCELL" from (0~250) to (-20~30).	R07A10_01.0 01.01.001
PHB	Fixed the problem that AT+CPBR could not read emergency calls from SIM card.	R07A10_01.0 01.01.001
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.	R07A10_01.0 01.01.001
SMS	Solved the problem that AT+QCFG="urcport/sms" could not set SMS reporting port to debug port.	R07A10_01.0 01.01.001
SMS	Optimized AT+QCFG="sms/listmsgmap" .	R07A10_01.0 01.01.001
SMS	Extended AT+QCFG="ltesms/format" to send SMS in 3GPP2 format only and receive SMS in 3GPP2 and 3GPP format at the same time.	R07A10_01.0 01.01.001

TCP SSL	Solved the problem that memory leak occurred when unilateral and mutual authentication connection with SSL was performed.	R07A10_01.0 01.01.001
TCP SSL	Solved the problem that there was one more empty line on the "cacertex" certificate path returned by AT+QSSLCFG="cacertex" .	R07A10_01.0 01.01.001
TCP/UDP	Increased the length of domain name returned by AT+QSSLOPEN from 40 bytes to 256 bytes.	R07A10_01.0 01.01.001
TCP/UDP	Extended AT+QICFG="window/scale" to configure TCP Window scale.	R07A10_01.0 01.01.001
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.	R07A10_01.0 01.01.001
WIFI	Solved the problem that WIFI could not connect to the hidden SSID.	R07A10_01.0 01.01.001
WIFI	Solved the problem that without SIM card, ECM could not work normally while FC20 was in the WIFI STA mode.	R07A10_01.0 01.01.001
WIFI	Solved the problem that after setting AT+QWSSIDHEX=1 , rebooting the module, 0 was always returned by AT+QWSSIDHEX? .	R07A10_01.0 01.01.001
WIFI	Solved the problem that WIFI could not work normally after WIFI SSID was set through AT+QWIFICFG="ssid" .	R07A10_01.0 01.01.001
WIFI	Solved the problem that IPv6 information could not be returned by AT+QWIFICFG="stainfo" .	R07A10_01.0 01.01.001
GENERAL	Solved the problem that the first APN obtained was wrong after AT&T MBN was activated (the result was nxtgenphone, and it should be Broadband).	R07A10_01.0 01.01.001
GENERAL	Optimized the problem of disconnection after USB suspended and then resumed.	R07A10_01.0 01.01.001
GENERAL	Solved the problem of NMEA port output error.	R07A10_01.0 01.01.001
GENERAL	Solved the problem of no sleep_ri jittered after receiving PPP data.	R07A10_01.0 01.01.001
GENERAL	Fixed the problem that the USB could not work normally when the module rebooted for the first time after DFOTA upgrade.	R07A10_01.0 01.01.001
GENERAL	For non-Chinese operators, turned on the AGPS function.	R07A10_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.	R07A10_01.0 01.01.001
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 .	R07A10_01.0 01.01.001
GENERAL	Fixed the problem that AT+QWSSIDHEX could not set SSID encoding mode to default text mode.	R07A10_01.0 01.01.001
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 ,	R07A10_01.0 01.01.001

	***100# was executed.	
GENERAL	Solved the problem that the default values of HSDPA returned by AT+QCFG="hsdpacat" and HSUPA returned by AT+QCFG="hsupacat" were incorrect.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that after QBI service closed, MBIM could not work normally when it was repeatedly opened or closed.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that AT&T could not be activated by FIRSTNET or NDO after activating ROW.	R07A10_01.0 01.01.001
GENERAL	Modify the first T-Mobile profile to spmode.ne.jp to support T-Mobile data transmission, and updated T-Mobile version to 202009271.	R07A10_01.0 01.01.001
GENERAL	Disabled VICE feature for Verizon.	R07A10_01.0 01.01.001
GENERAL	For T-Mobile, modified the voipMinSessionExpires to 90.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that the usrdta ubi may be mounted abnormally in a short time after the module was powered off by executing AT+QPOWD=0 .	R07A10_01.0 01.01.001
GENERAL	Optimized the jamming detection algorithm to improve the accuracy.	R07A10_01.0 01.01.001
GENERAL	Optimized three-in-one MBN solutions: 1. Solved the problem that the interfaces for three-in-one MBN could not be called normally. 2. Solved the problem that the parameters for three-in-one MBN could not take effect at booting after the firmware was downloaded into the module.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that Host could not obtain the IP from MBIM if the network only allocated IP without DNS address.	R07A10_01.0 01.01.001
GENERAL	Updated SE13 TABLE date to 2020/12/21.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that the module could not work normally when executing AT+QGPSGNMEA="GSV" after searching for multiple satellites.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that AT+QCFG="PCMCLK",0 could not turn off PCM clock.	R07A10_01.0 01.01.001
GENERAL	Updated the AT&T MBN version to 202102031 to use the MTU size allocated by the network and change ue_usage_setting to DATA Centric.	R07A10_01.0 01.01.001
GENERAL	When peer IP address length was more than 50 chars, silently truncated the string to 50 chars.	R07A10_01.0 01.01.001
GENERAL	Not triggered card power-down if EF-DIR read fails.	R07A10_01.0 01.01.001
GENERAL	Populated file attributes for EST file when card did not return FCP data.	R07A10_01.0 01.01.001

GENERAL	No sim E911 call for specific operators should not be blocked.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that the Verizon OMA server could not be connected using IPv6.	R07A10_01.0 01.01.001
GENERAL	Set the first APN to IPV6 ONLY by default for T-Mobile.	R07A10_01.0 01.01.001
GENERAL	Solved the problem that the uploaded AT&T APN name of Object 11 instance 0 is null.	R07A10_01.0 01.01.001
GENERAL	Solved the problem URC broadcast could not work normally after enabling CMUX feature.	R07A10_01.0 01.01.001
GENERAL	Set the default MTU to 1430 for AT&T and to 1342 for FirstNet.	R07A10_01.0 01.01.001
GENERAL	Modified the configuration of the 2nd profile (IMS) for T-Mobile to change the OVRIDEHOPDP to IPV6.	R07A10_01.0 01.01.001
GENERAL	Fixed the problem of incorrect RTC time synchronized from NITZ in some time zones.	R07A10_01.0 01.01.001
GENERAL	Solved the problem of failed to upgrade the whole firmware package.	R07A10_01.0 01.01.001
GENERAL	Removed firmware version matching feature when upgrading firmware as a whole via DFOTA.	R07A09_01.0 02.01.002
DFOTA	Supported to report DFOTA upgrade progress after powering down during DFOTA upgrade.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that CMAS message could not be received normally.	R07A09_01.0 01.01.001
GENERAL	Disabled ECC CALL for T-Mobile MBN.	R07A09_01.0 01.01.001
TCP SSL	Optimized the feature of SSL.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that "@" could not be displayed normally.	R07A09_01.0 01.01.001
QuecLocator 2.0	Optimized AT+QLBSCFG="server" .	R07A09_01.0 01.01.001
GENERAL	Solved the problem that a hyphen was lost in user agent for Verizon .	R07A09_01.0 01.01.001
GENERAL	Solved the problem where ATT, ATT_FIRSTNET and ATT_NDO MBN could not work properly when disabling the AUTOSEL function.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that special character 7bit 0x00f1 could not be displayed.	R07A09_01.0 01.01.001
DFOTA	Solved the problem that the DFOTA package download failed when executing AT+QFOTADL="http://user:password@www.baidu.com" .	R07A09_01.0 01.01.001
GENERAL	Updated mmgsdi_se13_table.h.	R07A09_01.0 01.01.001
HTTP	Optimized the feature of HTTP after enabling rspout/auto.	R07A09_01.0

		01.01.001
GENERAL	Enabled ECBM function.	R07A09_01.0 01.01.001
GENERAL	Optimized AT+QCFG="DIVCTL" .	R07A09_01.0 01.01.001
GENERAL	Solved the problem of error occurred when executing AT+QFWDCLIENT=1,3,"IP","TCP","220.180.239.212",8007 without dialing.	R07A09_01.0 01.01.001
GENERAL	Solved the problem of incorrect 7bit_alphabet printed by QGPSURC.	R07A09_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.	R07A09_01.0 01.01.001
GENERAL	Optimized AT+QWWAN to solve the problem of file storage path error.	R07A09_01.0 01.01.001
MQTT	Fixed the module rebooting caused by MQTT receiving a large number of subscribed topics.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that WCDMA Band4 diversity were opened unexpectedly by AT+QCFG="diversity",1 .	R07A09_01.0 01.01.001
GENERAL	Updated Verizon MBN version to 0x05010141.	R07A09_01.0 01.01.001
SIMCARD	Enabled FEATURE_MMGSDI_IGNORE_INIT_ERRO configuration to identify problematic SIM card.	R07A09_01.0 01.01.001
GENERAL	Optimized AT+QGPSCFG="outport","uartdebug" to output GPS from debug port.	R07A09_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.	R07A09_01.0 01.01.001
NETWORK	Disabled the eDRX function by default.	R07A09_01.0 01.01.001
WIFI	Solved the problem of failed to enable WIFI after configuring WIFI dual AP (AP0 + AP1) mode.	R07A09_01.0 01.01.001
GENERAL	Modified the range of the parameter <dpoenable> of AT+QGPSCFG="dpoenable" from (0,1) to (0,2).	R07A09_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.	R07A09_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" .	R07A09_01.0 01.01.001
Queclocator 2.0	Solved the problem that the error code returned incorrectly after executing AT+QLBS .	R07A09_01.0 01.01.001
NETWORK	Optimized AT+QRRCCONSTATE .	R07A09_01.0 01.01.001
TCP SSL	Ignored the verification for multi-level certificate chains by default in the embedded SSL protocol.	R07A09_01.0 01.01.001

NETWORK	Optimized AT+QCFG="fast_dormancy" to support fast dormancy mode 3.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that product ID information queried under USB view/Linux system and by ATI was inconsistency.	R07A09_01.0 01.01.001
NETWORK	Optimized AT+QCFG="lte/preferfre" .	R07A09_01.0 01.01.001
MQTT	Optimized AT+QMTPUBEX .	R07A09_01.0 01.01.001
FTP	Supported multiple server response parsing in FTP mode.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that the computer could not connect to the network after executing AT+QWWAN=1 .	R07A09_01.0 01.01.001
GENERAL	Update ROW MBN version to 0x05010820.	R07A09_01.0 01.01.001
GENERAL	Update the ID of Profile5 in Verizon MBN.	R07A09_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.	R07A09_01.0 01.01.001
GENERAL	Extended AT+QFOTADL to increase DFOTA upgrade path length.	R07A09_01.0 01.01.001
MMS	Solve the problem that MMS proxy addresses starting with 0 could be set with AT+QMMSCFG="proxy" .	R07A09_01.0 01.01.001
GENERAL	Solved the problem that AT&T OMADM could not connect DM server caused by a failure of SSL handshake.	R07A09_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.	R07A09_01.0 01.01.001
TCP/UDP	Solved the problem that after activating PDP, the AT port may not work normally after executing AT+QIDEACT immediately without response.	R07A09_01.0 01.01.001
GENERAL	Solved the problem of error returned when querying NV553 after activating AT&T MBN.	R07A09_01.0 01.01.001
Queclocator 2.0	Solved the problem that the default server port (80) could not be obtained by AT+QLBSCFG? .	R07A09_01.0 01.01.001
GENERAL	Modified the value of NV5280 to 771, and turned off the voice call function.	R07A09_01.0 01.01.001
GENERAL	Changed the first APN name of AT&T to Broadband.	R07A09_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" .	R07A09_01.0 01.01.001
GENERAL	Updated AT+CGSN to support querying IMEI number and SN number.	R07A09_01.0 01.01.001
GENERAL	Solved the problem of incorrect default value of ATX queried by AT&V .	R07A09_01.0 01.01.001

GENERAL	Modified the parameter return format of AT+QCFG="siminvalirecovery" .	R07A09_01.0 01.01.001
GENERAL	Solved the problem that the IPV6 domain name address resolved by AT+QIDNSGIP was incorrect.	R07A09_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.	R07A09_01.0 01.01.001
GENERAL	Disabled FGI bit 27, 28 and 29 for AT&T data only device.	R07A09_01.0 01.01.001
GENERAL	Changed the range value returned by AT+QDAI=? from (1-4) to (1-6).	R07A09_01.0 01.01.001
GENERAL	Solved the problem of an error returned when setting SGMII by AT+QSGMIICFG="config" .	R07A09_01.0 01.01.001
MQTT	Fixed module RI changed but no URC reported when sending data via MQTT protocol.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that NMEA sentence returned by AT+QGPSNMEA="GSA" was incomplete.	R07A09_01.0 01.01.001
GENERAL	Changed the number of attachments returned by AT+QCFG="siminvalirecovery" from 208 to (0-1).	R07A09_01.0 01.01.001
HTTP	Solved the problem that the module worked improperly after asking an HTTP request with wrong URL.	R07A09_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 three times.	R07A09_01.0 01.01.001
GENERAL	Optimized the AT+QCFG="airplanecontrol" to support setting QMI not to exit the flight mode when pulling w_disable to low.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that AT&T could not be activated by FIRSTNET or NDO after activating ROW.	R07A09_01.0 01.01.001
GENERAL	Solved the problem that the default value of NV1920 was incorrect when activating Rogers MBN.	R07A09_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.	R07A09_01.0 01.01.001
FTP	Improved FTP feature under IPv6.	R07A08_01.0 02.01.002
HTTP	Improved HTTP feature under IPv6.	R07A08_01.0 02.01.002
NETWORK	Expanded AT+QNETINFO to query system frame number and subframe number when registering on LTE network.	R07A08_01.0 02.01.002
GENERAL	Optimized IMEI backup protection mechanism.	R07A08_01.0 02.01.002
HTTP	Added 28 parameters for AT+QHTTPCFGEX .	R07A08_01.0 02.01.002
DFOTA	Supported URC reporting of the upgrade progress continued with that before powering off during DFOTA upgrade.	R07A08_01.0 02.01.002

NETWORK	Optimized AT+QCOPS to search nearby PLMN information as many as possible.	R07A08_01.0 02.01.002
DFOTA	Solved the problem that no start or end report for DFOTA upgrade if AT+CMEE=0 is executed.	R07A08_01.0 02.01.002
DFOTA	Removed bind_flag after DFOTA upgrade was succeeded.	R07A08_01.0 02.01.002
GENERAL	Solved the problem that AT&T OMADM could not connect DM server caused by a failure of SSL handshake.	R07A08_01.0 02.01.002
HTTP	Updated the encode_buffer size from 1024 to 2048 bytes for supporting long URL.	R07A08_01.0 02.01.002
NETWORK	Improved the stability when executing AT+QNETINFO=2,2 or AT+QNETINFO=2,f with unstable network.	R07A08_01.0 02.01.002
NETWORK	Solved the problem that AT+CGDCONT could not configure device APN as empty for the first time after upgrade.	R07A08_01.0 02.01.002
SMS	Solved the problem that Spanish character was shown as messy code in SMS.	R07A08_01.0 02.01.002
NETWORK	Supported to search band according to the band value configured by AT+QCFG="band" for AT+QCOPS .	R07A08_01.0 02.01.002
GENERAL	Optimized UBI mounting mechanism.	R07A08_01.0 02.01.002
GENERAL	Disabled URC autoreport feature for AT&T OMA by default.	R07A08_01.0 02.01.002
GENERAL	Solved the problem that the positioning mode always be 2D after positioning.	R07A08_01.0 02.01.002
GENERAL	Removed the default value of apid.	R07A08_01.0 02.01.002
GENERAL	Modified the default value of inactivity timer as 20s, and configured the default value of UT1/UT2/UT3 of AGPS as 10s/10s/30s.	R07A08_01.0 02.01.002
FTP	Solved the problem of serial port abnormality while returned ERROR directly after returning CONNECT via AT+QFTPPUT , AT+QFTPGET , AT+QFTPLIST and AT+QFTPNLST under PORT mode.	R07A08_01.0 02.01.002
QMI	Solved the problem that error occurred after executing AT\$QCRMCall .	R07A08_01.0 02.01.002
TCP/UDP	Improved module stability when switching data access mode.	R07A08_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.	R07A08_01.0 01.01.001
NTP	Solved the problem of format error when executed AT+QCFG="NTP" .	R07A08_01.0 01.01.001
GENERAL	Updated the TS25 PLMN list.	R07A08_01.0 01.01.001
MMS	Solved the problem that when port set by AT+QMMSCFG="proxy" was out of range, would return OK and query take effect unexpectedly.	R07A08_01.0 01.01.001

MMS	Solved the problem that the title setting to null can also be successful not fail.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that the value of man and model could not be changed by AT+QODM="hostdevice" .	R07A08_01.0 01.01.001
NETWORK	Solved the problem that the cell info could not searched by AT+QCOPS .	R07A08_01.0 01.01.001
MMS	Solved the problem that no error report when the parameter of AT+QMMSEND was out of range.	R07A08_01.0 01.01.001
MMS	Improved module stability when executing AT+QMMSEDT=5,1 .	R07A08_01.0 01.01.001
MMS	Solved the problem that no error report when the parameter of AT+QMMSCFG="sendparam" was missing.	R07A08_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.	R07A08_01.0 01.01.001
NITZ	Solved the problem of returned format error when executed AT+CCLK? .	R07A08_01.0 01.01.001
NITZ	Solved the problem that when set the parameter of AT+CTZU to illegal value 2, it would be set and take effect unexpectedly.	R07A08_01.0 01.01.001
GENERAL	Solved the dsi_init timeout time in ql_manager was insufficient caused ql_manager_server abnormal.	R07A08_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.	R07A08_01.0 01.01.001
GENERAL	Improved the GNSS performance under high temperature.	R07A08_01.0 01.01.001
MQTT	Solved the problem that the connection between module MQTT and Huawei Cloud cannot be established when configuring check timestamp.	R07A08_01.0 01.01.001
SIMCARD	Submitted the following command: AT+QCFG="sim/recovery" AT+QLOCI .	R07A08_01.0 01.01.001
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 AGPS + SUPL testing failed under the mode of MT SMS.	R07A08_01.0 01.01.001
GENERAL	Optimized file system restore mechanism.	R07A08_01.0 01.01.001
GENERAL	Optimized RF Factory Test feature.	R07A08_01.0 01.01.001
GENERAL	Optimized AT+QMBNCFG="autosel",0 .	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. Solved the problem that WIFI was always the first profile cid to dial.	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 process when sending UDP data on different destination port.	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	Optimized ATI to display the ECXX-XX(D) for DATA only device.	R07A08_01.0 01.01.001
GENERAL	Optimized single image upgrading.	R07A08_01.0 01.01.001
GENERAL	Optimized AT+QLEDSTAT to configure network LED status.	R07A08_01.0 01.01.001
GENERAL	Adjusted the read value of AT+QCFG="pdp/duplicatechk" .	R07A08_01.0 01.01.001
GENERAL	Updated ROW/AT&T 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
GENERAL	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
DFOTA	Solved the problem that the module would reboot and restore repeatedly after DFOTA upgraded.	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	Removed the function of APN Disable/Enable.	R07A08_01.0 01.01.001
GENERAL	Updated the default address of dmacc to 4g2.vzw.com.	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

GENERAL	Solved the small probability problem that /data changed into read-only state after rebooting multiple times.	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 Verizon were not reported after DFOTA upgrading	R07A08_01.0 01.01.001
GENERAL	Optimized the process of FUMO running after powered off and rebooted.	R07A08_01.0 01.01.001
MMS	Solved the small probability problem that MMS could not be received.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that OMADM types of WAP PUSH SMS could not be received caused by the ME memory ran slowly.	R07A08_01.0 01.01.001
GENERAL	Updated connmo.tre for Verizon OMA	R07A08_01.0 01.01.001
GENERAL	Improved the capability of FGI bit20.	R07A08_01.0 01.01.001
NETWORK	Modified DATA only project APN to be "broadband", removed VOICE and VOIP from attach requested information and set sms_only to be 1 for AT&T certification.	R07A08_01.0 01.01.001
WIFI	Improved the stability of ql-manager-server.	R07A08_01.0 01.01.001
TCP SSL	Extended AT+QSSLCFG="cacertex" to add multiple CA certificates.	R07A08_01.0 01.01.001
GENERAL	Solved the problem that the partition of usrdata and data would be formatted unexpectedly.	R07A08_01.0 01.01.001
MQTT	Corrected the reported MSG_ID when MQTT sending the timeout message.	R07A08_01.0 01.01.001
GENERAL	Updated CEFS to version V00020.	R07A08_01.0 01.01.001
NETWORK	Increased the maximum band number that allowed to be queried by AT+QCOPS .	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	Solve the problem that the module would automatically download the ephemeris and report URC unexpectedly.	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
QMI	Solved the problem that the network card could not work after switching SIM card and first rebooting.	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
Dual UART	Enabled AT+QDIAGPORT .	R07A08_01.0 01.01.001
TCP/UDP	Solved the problem of URC reporting error when UDP server connected to multiple clients.	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 usdata 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 that WIFI configuration lost after modules rebooted.	R07A08_01.0 01.01.001
GENERAL	Enabled AGPS function.	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	Optimized DFOTA upgrade when the module powered down in the process of DFOTA upgrade to 79%.	R07A08_01.0 01.01.001
GENERAL	Modified model value of OMA to EC25-AF (D).	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
GENERAL	Solved the issue that ipth_dme has no execution permission after DFOTA upgraded.	R07A07_01.0 03.01.003
NETWORK	Solved the issue that the 6th profile could not be set by AT+CGDCONT when MBN of Verizon was activated.	R07A07_01.0 02.01.002
GENERAL	Optimized 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	Changed the module to data-only type with T-Mobile SIM card inserted.	R07A07_01.0 01.01.001
NETWORK	Solved the issue that AT+QNWINFO could not support B66/B71 and corresponding frequency.	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
NETWORK	Supported cell blacklist function when RRC access failure reached a certain condition.	R07A06
GENERAL	Solved the problem that could not release the IP when use the AT+QODM="comm",2,"0" to kill Quectel_QCMAP_CLI.	R07A06

GENERAL	Fixed the issue that APN could not be automatically updated after switching between different AT&T cards (VoLTE/NDO/FirstNET).	R07A06
PPP	Solved the problem that the host could not establish PPP under the GSM network.	R07A06
GENERAL	Disabled EDRX function.	R07A06
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
SMS	Solved the problem that the SMS content would be incorrect when queried via AT+QCMGR under Verizon network.	R07A06
GENERAL	Optimized file system protection mechanism.	R07A06
AUDIO	Supported retry and delay of the driver loading to wait for the modem to boot completely.	R07A06
AUDIO	Optimized AT+QAUDCFG="encgain" .	R07A05
NETWORK	Modified the tuner LTE band12, band13, band14 corresponding GPIO level configuration for bluebird GRFC control.	R07A05
MQTT	Synchronized MQTT function.	R07A05
DFOTA	Optimized DFOTA process.	R07A05
NETWORK	Fixed the problem that no service got from CREG/CGREG/CREG while module registered network after executing AT+COPS=2 and AT+COPS=1,2,"plmn" .	R07A05
NETWORK	Fixed stuck issue when APN settings was set for thousands of times without stopping.	R07A05
GENERAL	Fixed the issue that when TCP/UDP connected, the module would run out of memory when under weak signal.	R07A05
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
AUDIO	Optimized below AT commands: AT+QAUDCFG="alc5616/dlgain" , AT+QAUDCFG="alc5616/ulgain" .	R07A05
TCP SSL	Modified SSL to support TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384.	R07A05
WIFI	Optimized AT+QWBCAST and AT+QWMOCH to solve response error.	R07A05
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
GENERAL	Enabled the features of the OMA-DM automatic upgrading and automatically reporting the upgrade result.	R07A05
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
GENERAL	Changed APN of profile 1 to IPV4V6 for T-Mobile.	R07A04
GENERAL	Changed Manufacture of USB description to Quectel. Changed Product Info of USB description to EC25-AF(D).	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 could not 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 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
NETWORK	Fixed the issue that neighbor cell list is too much to be shown in AT+QENG="neighbourcell" in some case.	R07A02
NETWORK	Changed the RSSI of +QCSQ URC to the same as response of AT+QCSQ .	R07A02

5. Known Issues

Item/Category	Brief Description
/	/

6. Functions

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

NOTE

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 BLE, SPP and HFG.
7. Verification Environment is shown below. For more details, please contact Quectel technical support.
For Windows,
USB Driver: Quectel_Windows_USB_Driver(Q)_NDIS_V2.4.6
Qflash Tool: QFlash_V6.2

For Linux,

QFirehose Tool: QFirehose_Linux_Android_V1.4.11
USB Driver: Quectel_Linux_USB_Serial_Option_Driver_V1.0
QMI_WWAN Driver: Quectel_Linux&Android_QMI_WWAN_Driver_V1.2.2
GobiNet Driver: Quectel_Linux&Android_GobiNet_Driver_V1.6.3
Quectel-CM Tool: Quectel_QConnectManager_Linux_V1.6.3
QLog Tool: Quectel_QLog_Linux&Android_V1.5.16

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