

# MC60 Release Notes

## GSM/GPRS/GNSS Module Series

Rev. MC60(R2.0)\_Firmware\_Release\_Notes\_V0121

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## 1. Preamble

This document provides the Release Notes for MC60 firmware version **MC60ECAR01A21**. It describes major changes compared to MC60 firmware version **MC60ECAR01A20**.

## 2. Matters Needing Attention

SN	Brief Description
[1]	The new firmware version cannot be downgraded to previous versions, otherwise the module will not be able to work normally.

## 3. New Features

Item /Category	Brief Description	Since
General	The new firmware version cannot be downgraded to previous versions, otherwise the module will not be able to work normally.	R01A20
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.	R01A20
General	Added <b>AT+QUESTAT</b> to get the UE status in the specified scenario.	R01A20
SIMCARD	Added AT command <b>AT+QCFG="SIM/BipApn", "apn"</b> to set the apn of the SIM card.	R01A09
SIMCARD	Added AT command <b>AT+QCFG="SIM/Bip", &lt;n&gt;</b> to disable/enable BIP function, the default is enable.	R01A09
QuecFOTA	Added the function of GNSS using QuecFOTA to upgrade.	R01A09
TCP SSL	Added cipher suites 0X009C,0X009D,0xC027,0XC028.	R01A08
SMS	Added the function of SMS with National Language Single Shift (Ref 23.038) header.	R01A08
TCP SSL	Added cipher suites 0XC030.	R01A08
TCP SSL	Added SNI function.	R01A08
MQTT	Added AT command <b>AT+QMTCFG="SHOWRECVLEN"</b> to control the output format of +QMTRECV URC.	R01A08
BT	Added AT command <b>AT+QLBS,AT+QLBSCFG</b> configure the sleep time of BT task.	R01A08

<b>QuecLocator</b>	Added AT command <b>AT+QLBS,AT+QLBSCFG</b> for QuecLocator function.	R01A07
<b>BT</b>	Added SPP service name.	R01A07
<b>HTTP</b>	Added AT command <b>AT+QHTTPGETEX, AT+QHTTPDLEX</b> to realize the function of HTTP segmented downloading large files and storing them in RAM.	R01A07
<b>TCP SSL</b>	Added AT command <b>AT+QSSLCFG="certchain"</b> parameter to control the certificate chain problems encountered during the SSL connection	R01A06
<b>BLE</b>	Added BLE scan filter function.	R01A06
<b>QuecLocator</b>	Added third parameters for “ <b>AT+QLOCCFG</b> ” to get the error code when getting the location fai.	R01A05
<b>TCP SSL</b>	Added SSL transparent transmission function.	R01A05
<b>BLE</b>	Added AT command <b>AT+QBTGATSENLE</b> use to control the broadcast of BLE, when Bluetooth is visible.	R01A04
<b>BLE</b>	Added AT command <b>AT+QBTGATCCON?</b> to query the current connection status.	R01A04
<b>BLE</b>	Added AT commands <b>AT+QGATADVDATA</b> and <b>AT+QGATSCANRSP</b> for setting advertising data and scan response data respectively.	R01A04
<b>BLE</b>	Added AT command <b>AT+QGATCFGSCAN</b> for setting scan interval and scan window.	R01A04
<b>OCPU</b>	Added the parameter <b>QL_UART_TX_BUF_SEND_OUT</b> for <b>QI_UART_GetOption</b> to check whether the serial data is sent out or not.	R01A04
<b>GNSS</b>	Added AT Command <b>AT+QGNSSSEPO=2,&lt;server_name&gt;[,&lt;port&gt;]</b> to set the EPO server domain name and port.	R01A04
<b>MQTT</b>	Added AT command <b>AT+QMTCFG="VERSION",&lt;tcpconnectID &gt;[,&lt;version_num&gt;]</b> for setting MQTT version, support MQTT version 3.1.1	R01A04
<b>SIMCARD</b>	Add AT+CGLA command for SIM.	R01A04
<b>SIMCARD</b>	Add refresh function for SIM.	R01A04
<b>DTMF</b>	Add AT+QWDTMF command for sending DTMF tones to remote peer.	R01A04
<b>BLE</b>	Added BLE CLIENT function.	R01A03
<b>MQTT</b>	Added MQTT function.	R01A03

## 4. Improved Features

Item/Category	Brief Description	Since
General	Modified the internal AT command of the production line to solve the FPY (First Pass Yield) related problem.	R01A21
HTTP	Solved the problem that +3815 would be reported if <b>AT+QHTTPPOST</b> was executed multiple times immediately after executing <b>AT+QHTTPCFG="requestheader",1</b> .	R01A20
SIMCARD	Submit BIP patch to solve the problem that SIM TASK does not respond after receiving OPEN CHANNEL.	R01A09
STK	Fixed the bug that in eUICC test, after receiving SEND_SMS, the SMS has been sent successfully, but the sending of the message to the bottom layer failed.	R01A09
MQTT	Fixed the bug that <b>AT+QMTOPEN</b> failed to execute again after the failure of simultaneous base QuecLocator2.0 and MQTT connection (domain name mode).	R01A08
BLE	Optimized BLE search function.	R01A08
ECALL	Deleted eCall function.	R01A08
EPO	Optimized the EPO download process.	R01A08
BLE	Fixed the bug that the other party could not get the service UUID of the module after repeatedly disconnecting the connection.	R01A07
BLE	Improve the success rate of BLE active search.	R01A07
BLE	Fixed the bug that BLE scan was repeatedly reported when a large number of BLE devices were around.	R01A06
OpenCPU	Fixed the bug that more than 0x7CFFFFFF of the execution <b>QI_GetMsSincePwrOn</b> will cause overflow.	R01A05
BT	Fixed the bug that traditional Bluetooth is unable to get supported profile after pairing.	R01A05
BLE	Fixed the bug that BLE is connected to server as a client and the client address reported by server is a traditional Bluetooth address.	R01A05
GNSS	Update to latest AXN5.1.6 to fix that satellites number reduced in GSV when output frequency is greater than 1Hz, and fix that PMTK255 is invalid.	R01A05
BLE	Fixed the bug that When the <b>AT+QGATSETADV</b> command is executed, there is no device name in the advertising data.	R01A04
BLE	Changed the BLE scan mode from active scan to passive scan.	R01A04
GNSS	Enhanced QZSS stability due to new announcement #194 and #195.	R01A04

<b>GENERAL</b>	Optimized the FOTA function.	R01A04
<b>FILE</b>	Fixed the bug that when the operation for FAT is performed, the return value "OK" is delayed for more than two seconds after exited transparent mode.	R01A04
<b>BT</b>	Fixed the bug that when the module is used for HF call in speaker mode, the other side will hear the echo.	R01A03

## 5. Known Issues

Item/Category	Brief Description
/	/

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## 6. Functions

Basic Function								
SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	FILE <sup>1)</sup>
Y	Y	N	N	Y	Y	Y	Y	Y
Triple UART								
Y								
Protocol Function								
TCP/UDP	PPP	FTP	HTTP	NITZ	PING	NTP	HTTPS	TCP SSL
Y	Y	Y	Y	Y	Y	Y	Y	Y
MQTT								
Y								
Special Function								
Jamming Detection	DTMF	Audio Play	Quec FOTA	OpenCPU FOTA	Quec Locator2.0 <sup>2)</sup>	QuecOpen	DSSS	BT <sup>3)</sup>
Y	Y	Y	Y	Y	Y	Y	Y	Y
SIM Detection								
ALARM								
Y								
GNSS Function								
AIC	EASY	EPO <sup>4)</sup>	SBAS	Always Locate	LOCUS	PPS sync NMEA	QuecFast Fix Online	SDK <sup>5)</sup>
Y	Y	Y	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. <sup>1)</sup> Supports RAM FILE only.
4. <sup>2)</sup> 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.

5. <sup>3)</sup> Supports BT 4.0 dual\_mode(Classic Mode and Bluetooth Low Energy).
6. <sup>4)</sup> After EPO is enabled, it will actively attach GPRS network.
7. <sup>5)</sup> Supports PQECEP,PQBAUD,PQEPE,PQJAM,PQVEL,PQODO,PQPZ90,PQGLP,PQGEO,PQGBS.
8. Verification Environment is shown below. For more details, please contact Quectel technical support.  
For Windows,  
Qcom Tool: QCOM\_V1.6 or QCOM\_V1.7\_01\_Beta4  
Qflash Tool: QFlash\_V6.2  
  
For Linux,  
CMUX Driver: linux\_cmux\_2018.zip

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