

# MC60 Release Notes

## GSM/GPRS/GNSS Module Series

Rev. MC60\_Firmware\_Release\_Notes\_V0105

Date: 2016-11-21

## 1. Preamble

This document provides the Release Notes for MC60 firmware version **MC60CAR01A05**. It describes major changes compared to MC60 firmware version **MC60CAR01A04**. For a detailed listing of all changes, refer to the MC60 AT Command Set.

## 2. New Features

Item /Category	Brief description	Since
<b>OpenCPU</b>	Added OpenCPU function.	R01A03
<b>BT</b>	Added BT function, support SPP/HFP/AG profile.	R01A03
<b>PHB</b>	Added Phone Book function.	R01A03
<b>ECALL</b>	Added eCall function.	R01A03
<b>SIM DETECTION</b>	Added SIM detection function.	R01A03
<b>GNSS</b>	Added GNSS function( <b>AT+QGNSSC/AT+QGNSSRD/ AT+QGNSSCMD</b> ).	R01A03
<b>GNSS</b>	Added GNSS SDK function ( <b>PQEPE/PQGLP</b> ).	R01A03
<b>GNSS</b>	Added EPO function for GNSS ( <b>AT+QGNSSSTS/ AT+QGNSSSEPO/ AT+QGREFLOC/ AT+QGEPOAID</b> ).	R01A04
<b>GNSS</b>	Added QuecFastFix Online AGPS function.	R01A04
<b>GNSS</b>	Added 1PPS function.	R01A04
<b>Audio Play</b>	Added audio play command( <b>AT+QPCMCLK</b> ).	R01A04
<b>PPP</b>	Added PPP function.	R01A04
<b>Dual UART</b>	Added Dual UART function.	R01A04
<b>GNSS</b>	Added AT Command <b>AT+QGNVPDM</b> .	R01A05
<b>OpenCPU</b>	Added the GPIO pins (SIM2_CLK, SIM2_RST, SIM2_DATA, GPIO0~GPIO4).	R01A05
<b>FILE</b>	Added to support SD function.	R01A05
<b>TCP</b>	Added the function that RI is set to low level and holds low level for 120ms when module receive TCP data that same as customized heartbeat.	R01A05

<b>OpenCPU</b>	Added the API <b>QL_VSPRINTF()</b> .	R01A05
<b>PPP</b>	Added the <b>QPPPTIMER</b> function.	R01A05
<b>AUDIO</b>	Added AT Command <b>AT+QPLAYMEM</b> , <b>AT+QPMEMBG</b> to play audio stream.	R01A05

### 3. Improved Features

Item/Category	Brief description	Since
<b>GENERAL</b>	Fixed the bug that PWM work abnormal issue.	R01A03
<b>TCP/UDP</b>	Fixed the bug that modem only receive but couldn't send data while modem re-enter in transparent transmission.	R01A03
<b>GENERAL</b>	Fixed the bug that cell information reported abnormal in calling after executing <b>AT+QENG=2,1</b> , but hang up after a while cell information reported will back to normal.	R01A03
<b>GENERAL</b>	Fixed the bug that the GNSS module waked up the GSM module too frequently.	R01A04
<b>GNSS</b>	Disabled the NMEA sentence of GPACURACY output.	R01A04
<b>NITZ</b>	Fixed the bug that the information reported abnormal after executing <b>AT+CTZR=2</b> .	R01A04
<b>DTMF</b>	Fixed the bug that after executing <b>AT+QWDTMF</b> with empty DTMF code, it will return OK for the first execution and after that will have been reported error regardless of whether the parameters are correct or not.	R01A04
<b>TCP SSL</b>	Fixed the bug that the information reported abnormal after executing <b>AT+QSSLCFG</b> .	R01A04
<b>BT</b>	Fixed the bug that the module could establish only one active connection, but when two active connections were established, there was no wrong reported information.	R01A04
<b>TCP</b>	Fixed the bug that there is no RI pin hopping when the TCP connection is disconnected by server.	R01A05
<b>BT</b>	Fixed the bug that the volume can't be changed by <b>AT+CLVL</b> command during a Bluetooth phone call.	R01A05
<b>BT</b>	Fixed the bug that there is no RI pin hopping when URC reported in bluetooth functional state.	R01A05
<b>TCP</b>	Optimized the interval range of TCP heartbeat packets keep alive, it can be configured for 10 s ~ 30 min.	R01A05
<b>GNSS</b>	Fixed the bug that GNSS frequently switch will lost some NMEA	R01A05

	sentences, when the GSM boot.	
<b>SMTP</b>	Fixed the bug that there is an error "+QSMTPATT: -12", when execute <b>QSMTPATT</b> , and Upload a file from the COM.	R01A05
<b>GENERAL</b>	Fixed the bug that SD card and SIM2 pin can not work normally as a GPIO mode for feeding hardware watchdog in the stage of bootloader.	R01A05
<b>Dual UART</b>	Fixed the bug that setting the debug port baud rate and save the invalid after restart, when Dual UART function is enabled.	R01A05

## 4. Functions

Basic Function								
SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	Dual UART
Y	Y	N	N	Y	Y	Y	Y	Y
FILE <sup>1)</sup>								
Y								
Protocol Function								
TCP/UDP	PPP	MMS <sup>2)</sup>	FTP	SMTP	HTTP	NITZ	PING	NTP
Y	Y	Y	Y	Y	Y	Y	Y	Y
SMTPS	HTTPS	TCP SSL						
Y	Y	Y						
Special Function								
Jamming Detection	DTMF	Audio Record	Audio Play	QuecFOTA	OpenCPU FOTA	Quec Locator	OpenCPU	DSSS
Y	Y	Y	Y	Y	Y	Y	Y	Y
eCall	BT	SIM Detection	GNSS	ALARM				
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 UFS/RAM/SD FILE only.
4. <sup>2)</sup> Supports MMS sending only.

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