

# **M66** Release Notes

## **GSM/GPRS Module Series**

Rev. M66(R1.0)\_Firmware\_Release\_Notes\_V0112

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## 1. Preamble

This document provides the Release Notes for M66 firmware version **M66FAR01A12BT**. It describes major changes compared to M66 firmware version **M66FAR01A11BT**. For a detailed listing of all changes, refer to the M66 AT Command Set.

## 2. New Features

Item /Category	Brief description	Since
OpenCPU	Added OpenCPU function.	R01A02
TCP/UDP	Extended <b>AT+QIRD</b> to support query a socket receive data and data in buffer when <b>&lt;readlen&gt;=0</b> .	R01A02
NITZ	Extended the function of <b>AT+QLTS</b> .	R01A02
AUDIO	Added audio play function ( <b>AT+QAUDPLAY/AT+QAUDSTOP</b> ).	R01A03
BT	Added BT function, just support SPP profile currently.	R01A03
HTTP	Added AT Command <b>AT+QHTTPCFG</b> .	R01A03
PHB	Added AT Command <b>AT+QPBD</b> .	R01A03
AUDIO	Added audio play function during a call ( <b>AT+QPSND</b> ).	R01A04
AUDIO	Added Resource Bin play function during a call ( <b>AT+ QPRESBG</b> ).	R01A04
AUDIO	Added Resource Bin play function ( <b>AT+QPLAYRES/AT+QSTOPRES</b> ).	R01A04
QuecLocator	Added new parameter for <b>AT+QLOCCFG</b> to get the time when customer use <b>AT+QCELLLOC=1</b> to get the GSM location information.	R01A04
AUDIO	Added new function <b>AT+QCAGC</b> control AGC.	R01A04
SMS	Added new option <b>&lt;ds&gt;=2</b> of <b>AT+CNMI</b> to save SMS-STATUS-REPORT in storage.	R01A04
BT	Added BT SPP transparent transmission function.	R01A04
BT	Supported to set the second parameter as 0 to query the sent/read count in <b>AT+QSPPSEND</b> and <b>AT+QSPPREAD</b> .	R01A04
GNSS	Added UART GNSS function.	R01A04

<b>BT</b>	Added BT HFP AG function.	R01A05
<b>BT</b>	Added <b>AT+QBTHFGOP</b> command.	R01A06
<b>GENERAL</b>	Added <b>AT+QGPIIO</b> command.	R01A06
<b>OpenCPU</b>	Added QuecFOTA App download function.	R01A06
<b>PCM</b>	Added read mode of <b>AT+QPCMON</b> command to query the PCM state.	R01A07
<b>PCM</b>	Added <b>AT+QPCMCLK</b> command.	R01A07
<b>FILE</b>	Added SD card storage function.	R01A08
<b>TCPIP</b>	Added <b>AT+QIOPT</b> command.	R01A08
<b>AUDIO</b>	Added <b>AT+QPMEMBG</b> command.	R01A08
<b>HTTP</b>	Added the function that HTTP breakpoint downloading process with the range domain.	R01A09
<b>GNSS</b>	Add the function that Support for GPS + GLONASS and GPS + BEIDOU NMEA sentence parsing.	R01A09
<b>TCP/UDP</b>	Added AT Command <b>AT+QIDATAVOL.</b>	R01A09
<b>OpenCPU</b>	Added the RFTXMON pin as GPIO.	R01A09
<b>BT</b>	Added AT Command <b>AT+QBTCFG.</b>	R01A09
<b>Network</b>	Added AT command <b>AT+QSCANFTA.</b>	R01A09
<b>OTHERS</b>	Added the function that can read cache data when TCP/SSL connection is closed by the server.	R01A09
<b>STK</b>	Added the function that can support special STK instruction "SET UP IDLE MODE TEXT".	R01A09

### 3. Improved Features

Item/Category	Brief description	Since
<b>SMTP</b>	Fixed the bug that SMTP does not support adding attachment from COM.	R01A02
<b>AUDIO</b>	Improved the echo cancellation and suppression function.	R01A02
<b>AUDIO</b>	Improved the audio gain table of QMIC and CLVL.	R01A02

<b>AUDIO</b>	Fixed the bug that playing time is not accurate when using <b>AT+QLTONE</b> .	R01A02
<b>VOICE CALL</b>	Fixed the bug that execute <b>AT+CCFC=0,2,,,1</b> to query the status of call forwarding but return ERROR.	R01A02
<b>JAMMING DETECTION</b>	Fixed the bug that no jamming status reported whether turn on or turn off the jammer while the RI pin is set as reporting pin.	R01A02
<b>TCP/UDP</b>	Fixed the TCP incorrect retransmission issue in A02.	R01A03
<b>GENERAL</b>	Fixed the bug that the written index of <b>AT+CPOL</b> is incorrect.	R01A03
<b>AUDIO</b>	Fixed the bug that the tone can't be normally closed after in the case of continuous playback when calling <b>AT+QLTONE</b> .	R01A04
<b>AUDIO</b>	Fixed the bug that the tone can't be played when the parameter "periodOn" of <b>AT+QLTONE</b> is set to 0.	R01A04
<b>VOICE CALL</b>	Fixed the bug that module can't hang up by calling <b>ATH</b> after <b>ATSO</b> was set to 3 and saved.	R01A04
<b>STK</b>	Optimized the behavior when <b>AT+QSTK=0</b> .	R01A04
<b>GENERAL</b>	Fixed the bug that the DTR function cannot be used.	R01A04
<b>BT</b>	Changed the maximum limit of BT scanning equipment to 20.	R01A04
<b>AUDIO</b>	Fixed the bug that the voice call have some noise when the QMIC is set 0, in earphone path.	R01A05
<b>BT</b>	Supported transparent SPP mode for <b>AT+QBTCOOND</b> .	R01A05
<b>BT</b>	Removed the double quotes from the BT address parameter, and added the double quotes to the BT profile name parameter.	R01A05
<b>BT</b>	Fixed the bug that the module will crash when SPP connect disconnect again and again.	R01A06
<b>OpenCPU</b>	Add some fatal error code for file system operation.	R01A06
<b>BT</b>	Fixed the bug that the module set up call first, then connect Bluetooth headset, the voice will output from the headset, even though the result of <b>AT+QBTHFGAUDIO?</b> is 1.	R01A07
<b>BT</b>	Fixed the bug that multiple paired devices will occasionally appear the same name.	R01A07
<b>BT</b>	Fixed the bug that the device failing to pair appears in the paired list occasionally.	R01A07
<b>BT</b>	Fixed the bug that result of <b>AT+ QBTDISCONN =?</b> doesn't include mode 0.	R01A07
<b>OpenCPU</b>	Fixed the bug that the module will hang if DTR is configured as GPIO mode.	R01A07
<b>AUDIO</b>	Fixed the bug that the <b>AT+QMEDVL</b> cannot work in <b>AT+ QAUDPLAY</b> repeated playback.	R01A07

<b>OpenCPU</b>	Fixed the bug that multiple calls of QI_PWM_Output() will lead to crash.	R01A07
<b>AUDIO</b>	Revised <b>AT+QWDTMF</b> result code report: report OK first after the command is executed and report "+WQDTMF: 5" after the playback completes.	R01A07
<b>BT</b>	Fixed the bug that it won't take effect to change the BT name in the paired status.	R01A07
<b>OTHERS</b>	Fixed the bug that the byte "0x1B" cannot be sent as data in fixed-length mode.	R01A07
<b>BT</b>	Fixed the bug that the BT pairing list is disordered and mismatched after download the firmware.	R01A07
<b>VOICE CALL</b>	Fixed the bug that if send SMS immediately in 2 seconds after originating the voice call, the call will be hung up.	R01A07
<b>FTP</b>	Fixed the bug that an error has occurred while upload SD file to FTP server.	R01A08
<b>GENERAL</b>	Fixed the bug that there was no <b>"OK"</b> returned after execute <b>AT+QLOCKF</b> .	R01A08
<b>OTHERS</b>	Fixed the bug that after setting the power off alarm, module power down immediately, which should be delay 5 seconds expected.	R01A08
<b>NETWORK</b>	Optimized the function that search network and scan frequency under special network environment.	R01A08
<b>FTP</b>	Fixed the bug that an error occurred while download file from FTP by anonymous login.	R01A08
<b>TCPIP</b>	Fixed the bug that while SSL_TCP connection exist with common TCPIP connection at the same time, execute common TCPIP commands will returned error after disconnected SSL_TCP connection.	R01A08
<b>BT</b>	Fixed the bug that can't use <b>ATH</b> hang up coming call while use HF device during calling.	R01A08
<b>GENERAL</b>	Fixed the bug that multi <b>"+CREG/+CGREG"</b> reported while module during roaming.	R01A08
<b>BT</b>	Fixed the bug that when module as AG, there was no ringtone sent to HF equipment which connected with module.	R01A08
<b>FTP</b>	Optimize the function that FTP breakpoint downloading process under active mode and passive mode.	R01A09
<b>TCP/UDP</b>	Fixed the bug that when the TCP connection is disconnected from the server, only CLOSED reported, no RI jump.	R01A09
<b>OpenCPU</b>	Fixed the problem that EINT can still be triggered after call QI_EINT_Mask in EINT callback of OpenCPU.	R01A09
<b>BT</b>	Fixed the bug that the BT address changed after the software upgrade.	R01A09
<b>BT</b>	Fixed the bug that the module could establish only one active connection, but when other active connections were established, there was no wrong reported information.	R01A09

<b>BT</b>	Fixed the bug that there is no RI pin hopping when URC reported in Bluetooth functional state.	R01A09
<b>GENERAL</b>	Fixed the bug that <b>AT+QENG=2</b> reports URC too frequently and irregularly.	R01A09
<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.	R01A09
<b>BT</b>	Fixed the bug that established SPP and HFP connections between two Bluetooth devices, error information displaying when disconnect the second connection.	R01A09
<b>BT</b>	Fixed the bug that the volume can't be changed by <b>AT+CLVL</b> command during a Bluetooth phone call.	R01A09
<b>SMS</b>	Fixed the bug that 12 seconds interval costs between each SMS when using <b>AT+CMGL</b> commands to list SMS under CMUX mode.	R01A09
<b>FTP</b>	Optimized the flow of <b>AT+QFTPSIZE</b> in consideration of charset.	R01A09
<b>NETWORK</b>	Fixed the bug that can't show the operator name "TELECOM ITALIA MOBILE" properly when execute <b>AT+COPS</b> .	R01A09
<b>OpenCPU</b>	Fixed the bug that <b>QL_Get_Message()</b> can not return, thus cause other messages can not be handled after call <b>QL_GPRS_ActiveEx()</b> & <b>QL_Socket_ConnectEx()</b> synchronization APIs.	R01A09
<b>FILE</b>	Fixed the bug that use <b>AT+QFLDS="UFS"</b> command query free size is smaller than total size about dozens of KB.	R01A09
<b>BT</b>	Fixed the bug that no URC " <b>+QBTPAIRCNF</b> " reported when send command <b>AT+QBTPAIRCNF</b> but the opposite side device reject the pair request.	R01A11
<b>BT</b>	Fixed a bug that the information display was incomplete when the iPhone was actively connected to the module without pairing.	R01A11
<b>GENERAL</b>	Add the new patch to ensure performance consistency for a new BB chip processing plant.	R01A11
<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.	R01A12

## 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	Quec FOTA	OpenCPU FOTA	Quec Locator	OpenCPU	eCall
Y	Y	Y	Y	Y	Y	Y	Y	Y

BT

SIM  
Detection

UART  
GNSS

ALARM

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.