

M66 Release Notes

GSM/GPRS Module Series

Rev. M66(R1.0)_Firmware_Release_Notes_V0206

Date: 2020-03-06



1. Preamble

This document provides the Release Notes for M66 firmware version **M66FAR02A06BT**. It describes major changes compared to M66 firmware version **M66FAR02A05BT**. 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 AT+QIRD to support query a socket receive data and data in buffer when <readlen>=0 .	R01A02
NITZ	Extended the function of AT+QLTS .	R01A02
AUDIO	Added audio play function (AT+QAUDPLAY/AT+QAUDSTOP).	R01A03
BT	Added BT function, just support SPP profile currently.	R01A03
HTTP	Added AT Command AT+QHTTPCFG .	R01A03
PHB	Added AT Command AT+QPBD .	R01A03
AUDIO	Added audio play function during a call (AT+QPSND).	R01A04
AUDIO	Added Resource Bin play function during a call (AT+ QPRESBG).	R01A04
AUDIO	Added Resource Bin play function (AT+QPLAYRES/AT+QSTOPRES).	R01A04
AUDIO	Added new function AT+QCAGC control AGC.	R01A04
SMS	Added new option <ds>=2 of AT+CNMI 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 AT+QSPPSEND and AT+QSPPREAD .	R01A04
GNSS	Added UART GNSS function.	R01A04
BT	Added BT HFP AG function.	R01A05
BT	Added AT+QBTHFGOP command.	R01A06

GENERAL	Added AT+QGPIO command.	R01A06
OpenCPU	Added QuecFOTA App download function.	R01A06
PCM	Added read mode of AT+QPCMON command to query the PCM state.	R01A07
PCM	Added AT+QPCMCLK command.	R01A07
FILE	Added SD card storage function.	R01A08
TCPIP	Added AT+QIOPT command.	R01A08
AUDIO	Added AT+QPMEMBG command.	R01A08
HTTP	Added the function that HTTP breakpoint downloading process with the range domain.	R01A09
GNSS	Add the function that Support for GPS + GLONASS and GPS + BEIDOU NMEA sentence parsing.	R01A09
TCP/UDP	Added AT Command AT+QIDATAVOL.	R01A09
OpenCPU	Added the RFTXMON pin as GPIO.	R01A09
BT	Added AT Command AT+QBTCFG.	R01A09
Network	Added AT command AT+QSCANFTA.	R01A09
OTHERS	Added the function that can read cache data when TCP/SSL connection is closed by the server.	R01A09
STK	Added the function that can support special STK instruction "SET UP IDLE MODE TEXT".	R01A09
TCP SSL	Added the function of TCP SSL transfer mode.	R02A01
SD	Added AT command AT+QMSDC.	R02A02
MQTT	Added MQTT function to support MQTT version 3.1.	R02A03
SSL	Added the AT+QSSLCFG= "certchain" to support the certificate chain connection.	R02A03
HTTP	Added AT Command AT+QHTTPCFG="requesttimeout" to configure the timeout for HTTP completion handshake.	R02A03
Quec Locator	Added AT command AT+QLBS,AT+QLBSCFG for QuecLocator function.	R02A04
MQTT	Added AT command AT+QMTCFG="DATAFORMAT" to set the format of sending and receiving data, supporting HEX and string.	R02A04
SMS	Added AT+QSMSCODE=3 for using GSM encoding in text mode to support more special characters display on the phone.	R02A04

SMS	Added AT Command AT+QCATSMSLST to get the number of sub-messages per long message in the current SMS storage and the Index of each sub-message in the storage.	R02A05
OTHERS	Added support for GSM L2 uplink fill bit randomization as per 3GPP TS 44.006, Chapter 5.2.	R02A05
BT	Added SPP service name.	R02A05
BT	Added AT Command AT+QBTHFGCLCC to actively send CLCC status to the other party.	R02A06
BT	Added AT Command AT+QBTHFGCLIP to send AT+CLIP=1.	R02A06
SSL	Added AT Command AT+QSSLBUFF=<ssid> .	R02A06

3. Improved Features

Item/Category	Brief description	Since
SMTP	Fixed the bug that SMTP does not support adding attachment from COM.	R01A02
AUDIO	Improved the echo cancellation and suppression function.	R01A02
AUDIO	Improved the audio gain table of QMIC and CLVL.	R01A02
AUDIO	Fixed the bug that playing time is not accurate when using AT+QLTONE .	R01A02
VOICE CALL	Fixed the bug that execute AT+CCFC=0,2,,,1 to query the status of call forwarding but return ERROR.	R01A02
JAMMING DETECTION	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
TCP/UDP	Fixed the TCP incorrect retransmission issue in A02.	R01A03
GENERAL	Fixed the bug that the written index of AT+CPOL is incorrect.	R01A03
AUDIO	Fixed the bug that the tone can't be normally closed after in the case of continuous playback when calling AT+QLTONE .	R01A04
AUDIO	Fixed the bug that the tone can't be played when the parameter "periodOn" of AT+QLTONE is set to 0.	R01A04
VOICE CALL	Fixed the bug that module can't hang up by calling ATH after ATS0 was set to 3 and saved.	R01A04
STK	Optimized the behavior when AT+QSTK=0 .	R01A04
GENERAL	Fixed the bug that the DTR function cannot be used.	R01A04

BT	Changed the maximum limit of BT scanning equipment to 20.	R01A04
AUDIO	Fixed the bug that the voice call have some noise when the QMIC is set 0, in earphone path.	R01A05
BT	Supported transparent SPP mode for AT+QBTCONND .	R01A05
BT	Removed the double quotes from the BT address parameter, and added the double quotes to the BT profile name parameter.	R01A05
BT	Fixed the bug that the module will crash when SPP connect disconnect again and again.	R01A06
OpenCPU	Add some fatal error code for file system operation.	R01A06
BT	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 AT+QBTHFGAUDIO? is 1.	R01A07
BT	Fixed the bug that multiple paired devices will occasionally appear the same name.	R01A07
BT	Fixed the bug that the device failing to pair appears in the paired list occasionally.	R01A07
BT	Fixed the bug that result of AT+QBTDISCONN=? doesn't include mode 0.	R01A07
OpenCPU	Fixed the bug that the module will hang if DTR is configured as GPIO mode.	R01A07
AUDIO	Fixed the bug that the AT+QMEDVL cannot work in AT+QAUPLAY repeated playback.	R01A07
OpenCPU	Fixed the bug that multiple calls of <code>QI_PWM_Output()</code> will lead to crash.	R01A07
AUDIO	Revised AT+QWDTMF result code report: report OK first after the command is executed and report "+WQDTMF: 5" after the playback completes.	R01A07
BT	Fixed the bug that it won't take effect to change the BT name in the paired status.	R01A07
OTHERS	Fixed the bug that the byte "0x1B" cannot be sent as data in fixed-length mode.	R01A07
BT	Fixed the bug that the BT pairing list is disordered and mismatched after download the firmware.	R01A07
VOICE CALL	Fixed the bug that if send SMS immediately in 2 seconds after originating the voice call, the call will be hung up.	R01A07
FTP	Fixed the bug that an error has occurred while upload SD file to FTP server.	R01A08
GENERAL	Fixed the bug that there was no "OK" returned after execute AT+QLOCKF .	R01A08
OTHERS	Fixed the bug that after setting the power off alarm, module power down immediately, which should be delay 5 seconds expected.	R01A08

NETWORK	Optimized the function that search network and scan frequency under special network environment.	R01A08
FTP	Fixed the bug that an error occurred while download file from FTP by anonymous login.	R01A08
TCPIP	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
BT	Fixed the bug that can't use ATH hang up coming call while use HF device during calling.	R01A08
GENERAL	Fixed the bug that multi " +CREG/+CGREG " reported while module during roaming.	R01A08
BT	Fixed the bug that when module as AG, there was no ringtone sent to HF equipment which connected with module.	R01A08
FTP	Optimize the function that FTP breakpoint downloading process under active mode and passive mode.	R01A09
TCP/UDP	Fixed the bug that when the TCP connection is disconnected from the server, only CLOSED reported, no RI jump.	R01A09
OpenCPU	Fixed the problem that EINT can still be triggered after call QI_EINT_Mask in EINT callback of OpenCPU.	R01A09
BT	Fixed the bug that the BT address changed after the software upgrade.	R01A09
BT	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
BT	Fixed the bug that there is no RI pin hopping when URC reported in Bluetooth functional state.	R01A09
GENERAL	Fixed the bug that AT+QENG=2 reports URC too frequently and irregularly.	R01A09
DTMF	Fixed the bug that after executing AT+QWDTMF 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
BT	Fixed the bug that established SPP and HFP connections between two Bluetooth devices, error information displaying when disconnect the second connection.	R01A09
BT	Fixed the bug that the volume can't be changed by AT+CLVL command during a Bluetooth phone call.	R01A09
SMS	Fixed the bug that 12 seconds interval costs between each SMS when using AT+CMGL commands to list SMS under CMUX mode.	R01A09
FTP	Optimized the flow of AT+QFTPSIZE in consideration of charset.	R01A09
NETWORK	Fixed the bug that can't show the operator name "TELECOM ITALIA MOBILE" properly when execute AT+COPS .	R01A09

OpenCPU	Fixed the bug that QL_Get_Message() can not return ,thus cause other messages can not be handled after call QL_GPRS_ActiveEx() & QL_Socket_ConnectEx() synchronization APIs.	R01A09
FILE	Fixed the bug that use AT+QFLDS="UFS" command query free size is smaller than total size about dozens of KB.	R01A09
BT	Fixed the bug that when the opposite side device is rejected, AT+QBTPAIRCNF could not be return URC: +QBTPAIRCNF .	R02A01
BT	Fixed the bug that iPhone mobile connect module actively shows incomplete information when not paired.	R02A01
HTTP	Fixed the probability abnormality of HTTP POST large data without flow control.	R02A01
OpenCPU	Fixed the bug that hardware IIC return -34 when slave device is busy.	R02A01
AUDIO	Optimized the PCM function during the call process.	R02A01
AUDIO	Fixed the bug that the uplink volume cannot be adjusted.	R02A01
BT	Fixed the bug that when the module is used for HF call in speaker mode, the other side will hear the echo.	R02A02
GENERAL	Add the new patch to ensure performance consistency for a new BB chip processing plant.	R02A02
HTTP	Fixed the bug that the output data does not contain HTTPS header information, after setting the at command AT+QHHTPCFG="Responseheader",1 .	R02A02
SMTP	Fixed the bug that the email will be sent failed, when there is a space in the sender's name.	R02A02
OpenCPU	Added the parameter QL_UART_TX_BUF_SEND_OUT for QL_UART_GetOption to check whether the serial data is sent out or not.	R02A02
HTTP	Fixed the bug that executing AT+QHHTTPGET command with omitted <data_size> parameter will cause resource request failure.	R02A03
HTTP	Fixed the bug that the parameter <wait_time> of AT+QHHTTPDL does not take effect.	R02A04
HTTP	Fixed the bug that when AT+HTTPDL command was executed under CMUX channel and then AT+QENG? Command was input from AUX serial port during AT+QEAUART=1 , the result code +QHHTTPDL of AT+QHHTTPDL command will be reported on the AUX serial port ,not the CMUX port.	R02A04
SIMCARD	Fixed the bug that When configuring AT+QSIMDET= 1&w to save a reboot, the hot swap function does not take effect.	R02A05
TCP	Fixed the bug that the execution of qiclose when connecting as a server resulted in the abnormal connection status of the client.	R02A06

TCP	Fixe the bug that when set QIMUX=0&QISERVER=0, the second client can connect to the server module, and when set QIMUX=1&QISERVER=0,1, the second client can also connect to the server module.	R02A06
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Functions

Basic Function

SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	Dual UART
Y	Y	N	N	Y	Y	Y	Y	Y

FILE¹⁾

Y

Protocol Function

TCP/UDP	PPP	FTP	HTTP	NITZ	PING	NTP	HTTPS	TCP SSL
Y	Y	Y	Y	Y	Y	Y	Y	Y

FTPS MQTT

Y

Y

Special Function

Jamming Detection	DTMF	Audio Record	Audio Play	Quec FOTA	OpenCPU FOTA	Quec Locator 2.0 ³⁾	Open CPU	DSSS
Y	Y	Y	Y	Y	Y	Y	Y	Y

eCall

BT²⁾

SIM Detection

UART GNSS

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 UFS/RAM/SD FILE only.
4. ²⁾ Supports BT 3.0 only, includes SPP, HFP, OPP.
5. ³⁾ Quec Locator2.0 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.