

BG96 Release Notes

LPWA Module Series

Rev. BG96_Firmware_Release_Notes_V0304_01.003.01.003

Date: 2019-07-02



1. Preamble

This document provides the Release Notes for BG96 firmware version **BG96MAR03A04M1G_01.003.01.003**. It describes major changes compared to BG96 firmware version **BG96MAR03A03M1G_01.002.01.002**. For a detailed listing of all changes, please refer to the BG96 AT Command Set.

Before:

ATI

Quectel

BG96

Revision: BG96MAR03A03M1G

After:

ATI

Quectel

BG96

Revision: BG96MAR03A04M1G

AT+QGMR

BG96MAR03A04M1G_01.003.01.003 //Added the new AT to query the full version information

AT+QAPPVER

+QAPPVER: 01.003.01.003 //Added the new AT to query the application version information

2. New Features

2.1 New Features of Modem Protocol

No update.

2.2 New Features of Modem APP

Item /Category	Brief description	Since
DFOTA	Added SoftBank DFOTA function (only for SoftBank use).	R03A03_01.002.01.002

DFOTA	Added the support for IPV6.	R03A03_01. 002.01.002
Quecopen	Added Quecopen® function.	R03A03_01. 002.01.002
GNSS	Added XTRA function.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="gpio" for configuration of some specified GPIOs.	R03A03_01. 002.01.002
GENERAL	Added AT+QICFG="recvind" to control whether to append the received data length in the URC.	R03A03_01. 002.01.002
FILE	Added AT+QFCRC and AT+QFCPY commands.	R03A03_01. 002.01.002
PING	Added AT+QPINGEXT command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="uartcfg" command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="simeffect" command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="emmcause" command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="sibinfo" command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="msclass" command.	R03A03_01. 002.01.002
GENERAL	Added AT+QCFG="nasconfig" command.	R03A03_01. 002.01.002
TCP/IP	Optimized for IPV6 support.	R03A03_01. 002.01.002
AUDIO	Added AT+QAUDCFG to support configure the downlink gain of ALC5616 and NAU8814 codecs.	R03A04_01. 003.01.003
FILE	Added security file folder function.	R03A04_01. 003.01.003

3. Improved Features

3.1 Improved Features of Modem Protocol

No update.

3.2 Improved Features of Modem APP

Item/Category	Brief description	Since
GENERAL	Updated SoftBank MBN file (only for SoftBank use).	R03A03_01.0 02.01.002
GENERAL	Optimized idle power consumption.	R03A03_01.0 02.01.002
MQTT	Fixed the bug that the message ID of the reported URC is wrong after sending packages timed out.	R03A03_01.0 02.01.002
MQTT	Optimized AT+QMTPUB to enable specifying the length of the load.	R03A03_01.0 02.01.002
MQTT	Optimized AT+QMTCONN to increase the size of the parameters.	R03A03_01.0 02.01.002
MQTT	Fixed the bug that AT+QMTCFG="timeout" command cannot configure whether to report timeout message or not when transmitting packet.	R03A03_01.0 02.01.002
FILE	Optimized AT+QFDEL command.	R03A03_01.0 02.01.002
FILE	Fixed the bug that an error will be returned when the file name exceeds 80 characters when executing AT+QIOPEN .	R03A03_01.0 02.01.002
GENERAL	Optimized AT+QLWM2M commands.	R03A03_01.0 02.01.002
FOTA	Optimized AT+QCFGEXT="fota_apn" to configure IP type.	R03A03_01.0 02.01.002
GENERAL	Optimized AT+QSSLCFG command.	R03A03_01.0 02.01.002
GENERAL	Optimized AT+QPSMCFG/AT+QPSMEXTCFG to enable its test command mode.	R03A03_01.0 02.01.002
FTPS	Fixed the bug that FTPS work exceptions.	R03A03_01.0 02.01.002
GENERAL	Fixed the bug that an incorrect value will be returned when executing AT+QCFG="airplanecontrol" .	R03A03_01.0 02.01.002
GENERAL	Optimized AT+QCFG="ledmode" to enable adjusting the flash frequency of network status LED.	R03A03_01.0 02.01.002
GENERAL	Fixed the bug that an incorrect query value of AT+QCSCON? will be returned after executing AT+CGATT=0 or AT+CFUN=0 .	R03A03_01.0 02.01.002
GENERAL	Fixed the bug that the query value of AT+QCFG="nwscanmode" command will be 1 if manual network register is interrupted.	R03A03_01.0 02.01.002
GENERAL	Optimized AT+COPS? command.	R03A03_01.0 02.01.002
GENERAL	Optimized AT+CREG? command.	R03A03_01.0 02.01.002

GENERAL	Optimized AT+QCFGEXT="device_object" command.	R03A03_01.0 02.01.002
FTM	Fixed the bug that AT+QRXFTM returns an abnormal query value.	R03A04_01.0 03.01.003
GNSS	Fixed the bug that module cannot output NMEA data to USB NMEA port occasionally.	R03A04_01.0 03.01.003
GENERAL	Optimized the configuration of AT+QCFG="pdp/duplicatechk" can be saved in module.	R03A04_01.0 03.01.003
NETWORK	Optimized module can select correct PDN type when the APN PDN type is configured with IPV4V6.	R03A04_01.0 03.01.003
MQTT	Optimized AT+QMTCFG="recv/mode" to support controlling whether URC reports contain payload data length information.	R03A04_01.0 03.01.003
MQTT	Fixed the bug that the MQTT data output is missing when MQTT downstream contains '\0' characters.	R03A04_01.0 03.01.003
MQTT	Fixed the bug that module received a large amount of data in GSM mode and could not output to the serial port occasionally.	R03A04_01.0 03.01.003
FTPS	Optimized FTPS support IPV6 network.	R03A04_01.0 03.01.003
MQTT	Optimized MQTT support IPV6 network.	R03A04_01.0 03.01.003
HTTP	Fixed the bug that the module re-fetches data from the HTTP server after a timeout error but still get a busy report.	R03A04_01.0 03.01.003
UDP	Fixed the bug that module cannot send data when it acts a UDP server.	R03A04_01.0 03.01.003
NETWORK	Fixed the bug that module cannot register to network after manually deactivating MBN.	R03A04_01.0 03.01.003
GENERAL	Fixed the bug that data is easily lost when being output via UART port quickly.	R03A04_01.0 03.01.003
GENERAL	Optimized module stability at high temperature with 85 degree Celsius.	R03A04_01.0 03.01.003
GENERAL	Fixed the bug that module blocked after execute AT+CGACT=1,1 under Cat-M1 network.	R03A04_01.0 03.01.003
LwM2M	Supported /3/0/30000 for Verizon Motive test requirement.	R03A04_01.0 03.01.003
Quecopen	Fixed the bug that failed to uploading file in Quecopen application.	R03A04_01.0 03.01.003
GNSS	Fixed the bug that QGPSLOC still could get NMEA sentences after GNSS lost fix.	R03A04_01.0 03.01.003
MQTT	Optimized AT+QMTPUB supports data transfers up to 4096 bytes.	R03A04_01.0 03.01.003
SSL	Optimized SSL that return an error if the certificate does not exist.	R03A04_01.0 03.01.003
FILE	Fixed the bug that file system abnormal if delete the file which still in downloading.	R03A04_01.0 03.01.003

4. Functions

Basic Function

SMS	Voice Call	Data Call	Fax	USSD	PHB	STK	CMUX	Dual UART
Y	N	N	N	Y	N	N	Y	N
FILE ¹⁾	Triple UART							
Y	N							

Protocol Function

TCP/UDP	PPP	FTP	HTTP	NITZ	PING	HTTPS	TCP SSL	FTPS ²⁾
Y	Y	Y	Y	Y	Y	Y	Y	Y
MQTT	LwM2M							
Y	Y							

Special Function

GNSS	PSM	DFOTA	Quecopen
Y	Y	Y	Y

NOTES

- Y means the firmware supports this function.
- N means the firmware does not support this function.
- ¹⁾ Supports UFS FILE only.
- ²⁾ Supports FTPS-Implicit SSL only.

5. Carrier Certification Status

Firmware Version	Full Firmware Version	AT&T	Verizon	T-Mobile	Sprint	Telus	SoftBank	KDDI	DOCOMO	SKT	Telstra	Vodafone	Telefonica	Deutsche Telekom
BG96MAR03A03M1G	BG96MAR03A03M1G_01.002.01.002						✓							
BG96MAR03A04M1G	BG96MAR03A04M1G_01.003.01.003						✓	✓	✓					