GV58CG Firmware Release Notes

GSM/GPRS/GNSS Tracker

TRACGV58CGRNR01A09V21

Version: 1.9.21



Driving Smarter IoT

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1 Preamble

This Release Note introduces GV58CG firmware version **GV58CGR01A09V21M128** and briefly describes the benefits over preceding release. Also you can find difference compared with preceding release.

Note
Firmware versions earlier than A07V21 cannot be upgraded directly to A07V23 or higher versions over-the-air, please upgrade to A07V21 first and then from version A07V21 to a higher version.

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2 Current Release

2.1 GV58CGR01A09V21M128

2.1.1 @Track Protocol Support

GV58CG firmware **GV58CGR01A09V21M128** supports @Track air interface protocol version 9.02. For detailed information about the protocol, please refer to the document **GV58CG@Track_Air_Interface_Protocol_v0902**.

2.1.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CGR01A08V21M128**.

Item	Brief Description
1	Added the message +RESP:GTRTI.
2	Added <Message Type> and <GNSS Position Type> to <Sub Command>-1 in AT+GTRTO.
3	Deleted the parameter <Read Interval> from the command AT+GTBAS.
4	Added model 8 to parameter <Beacon ID Model> in the command AT+GTBID.
5	Modified the description of <SACK Mode> in the command AT+GTSRI.
6	Optimized the logic function for the parameter <Cell Report> in the command AT+GTCFG.
7	Optimized the logic function for the parameter <Check Ignition> in the command AT+GTOWH.

2.1.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CGR01A08V21M128**.

Item	Brief Description
1	Fixed an issue where the <GNSS Satellite Number> in +RESP:GTUDT was greater than the <GSV Number>.
2	Fixed an issue where the <Backup Battery On> reported in the HEX format +RESP:GTINF message was incorrect when the device was not connected to the internal battery.

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Item	Brief Description
3	Fixed an issue where the message +RESP:GTGIN would be reported when only the <Output ID> of AT+GTPEO was modified.
4	Fixed an issue where it was unable to register on the network when using some SIM cards with a private APN and authenticating with a registered user and password.
5	Fixed an issue where the parameter <CAN Mask> in AT+GTHRM was inconsistent with the protocol.
6	Fixed an issue where the range of parameter <Network Mode> in AT+GTBSI was inconsistent with the protocol.
7	Fixed an issue where the device would not report +RESP:GTFRI message with frequent ignition on and off.
8	Fixed an issue where the device did not report the +RESP:GTUDT message according to the <Tow Interval> when it entered the TOW state and the FRI function was not enabled.
9	Fixed an issue where the message +RESP:GTUDT was reported after triggering TOW event when the parameter <IGF Sending Mode> was set to 0 in command AT+GTUDT.
10	Optimized the battery voltage sampling interval.
11	Optimized the Jamming detection function.
12	Fixed an issue where the UDF-CMD would be triggered again if Bit51 of the <Input ID Mask> in the UDF command was configured when the device's GPS transitioned from a successful fix to being turned off and then back to a successful fix.
13	Fixed an issue where the <RX Level> reported in +RESP:GTGSM messages was always 99 when the <Cell Report> was enabled in the AT+GTCFG command.
14	Fixed an issue where the AT+GTCAN function did not work.
15	Fixed an issue where the device would not report the +RESP:GTVGF message after resetting VMS configuration when in the virtual ignition on state.
16	Fixed an issue where the APN and Backup APN set in the AT+GTBSI command were cleared when they were empty.
17	Fixed an issue where the APN information could not be cleared by setting the parameter value to "%CLR%".
18	Modified the value range of parameter <GNSS Satellite Number>.
19	Optimized motion sensor detection.
20	Fixed an issue where the <Frame Number> reported in the +RESP:GTCRD message was greater than the <Total Frame>.
21	Fixed an issue where the message +RESP:GTUDT would be reported according to the <IGF Report Interval> in AT+GTFRI when the <Mode> in AT+GTFRI was set to 0 and <IGF Sending Mode> in AT+GTUDT was set to 1.

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Item	Brief Description
22	Fixed an issue where devices were dumped after FOTA upgrade.
23	Fixed an issue where the device could not be registered through automatic network mode using some SIM cards.
24	Fixed an issue where the parameter <Timeout after Ignition Off> in the command AT+GTIDA did not take effect.

Note

To upgrade the firmware from A01V23/A01V30/A02V10 to this version over the air, please upgrade it to A06V21 first and then to this version.

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3 Release History

3.1 GV58CGR01A08V21M128

3.1.1 @Track Protocol Support

GV58CG firmware **GV58CGR01A08V21M128** supports @Track air interface protocol version 8.04. For detailed information about the protocol, please refer to the document **GV58CG@Track_Air_Interface_Protocol_v0804**.

3.1.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CGR01A08V20M128**.

Item	Brief Description
1	N/A

3.1.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CGR01A08V20M128**.

Item	Brief Description
1	Improved production efficiency.

Note
To upgrade the firmware from A01V23/A01V30/A02V10 to this version over the air, please upgrade it to A06V21 first and then to this version.

3.2 GV58CGR01A08V20M128

3.2.1 @Track Protocol Support

GV58CG firmware **GV58CGR01A08V20M128** supports @Track air interface protocol version 8.04. For detailed information about the protocol, please refer to the document **GV58CG@Track_Air_Interface_Protocol_v0804**.

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3.2.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CGR01A07V23M128**.

Item	Brief Description
1	Modified the range of parameter <Min/Max Threshold> to 0 - 30000 mV in the command AT+GTAIS.
2	Added mode 4 to parameter <Mode> in AT+GTIDA command.
3	Added the parameter <Card ID> to the message +RESP:GTERI.
4	Added the parameter <EIO100 Connection> to the command AT+GTACD.
5	Added bit26 to <+RSP Mask> and <+EVT Mask> in the command AT+GTHRM.
6	Added type 0 to <Input Expansion Type> in the command AT+GTIEX and type 0 to <Output Expansion Type> in the command AT+GTOEX.
7	Added the parameter <Check Ignition> to the command AT+GTOWH.
8	Added mode 99 to the parameter <Mode> in the command AT+GTFRI.
9	Added the parameter <WAN Ping> to the command AT+GTBSI.
10	Supported Azure IoT Hub in the AT+GTMQT command.

3.2.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CGR01A07V23M128**.

Item	Brief Description
1	Optimized the SMS reporting process.
2	Modified the default value of parameter <Bluetooth Name> in AT+GTBTS from GV58CEU%IMEI to GV58CG%IMEI.
3	Fixed an issue where the +RESP:GTALM message contained the configuration of commands AT+GTLTP and AT+GTURT.
4	Fixed an issue where the AT+GTOWL function did not take effect after +RESP:GTDOG-7 reboot.
5	Fixed an issue where the message was not reported when sending AT+GTCFU command to cancel the upgrade during CAN100 firmware upgrade process.
6	Fixed an issue where the <GNSS Trigger Type> was always reported as 0 in the message +RESP:GTFRI when <Corner Value> in AT+GTFRI was 1.
7	Fixed an issue where the parameter <Trigger Count> of AT+GTIGM did not take effect.

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Item	Brief Description
8	Optimized the execution logic of AT+GTIDA command after the ignition was turned on.
9	Fixed an issue where the reporting interval of +RESP:GTFRI message was incorrect when AT+GTIGM function was enabled.
10	Fixed an issue where the GPS was not turned off after 5 minutes of ignition-off when <Power Saving Mode> was set to 1 in AT+GTCFG.
11	Fixed an issue where the device could not trigger AT+GTCMD when the parameter <Inpeo Mask> was triggered in command AT+GTUDF.
12	Fixed an issue where the input status did not change after the AT+GTDIS function was disabled.
13	Fixed an issue where reporting +RESP:GTUPD messages would cause the device to reboot.
14	Fixed an issue where upgrading the CAN version with AT+GTUPD would fail.
15	Fixed an issue where the message +ACK:GTSRI could not be controlled by the parameter <Protocol Format> in command AT+GTSRI.
16	Fixed an issue where the device reported HEX-formatted messages to cell phone via SMS.
17	Fixed an issue where the parameters <Additional Event Mask> and <CAN Report Expansion Mask> were inconsistent with the protocol when querying the configuration of AT+GTCAN via serial port.
18	Modified the default value of parameter <Electric Report Mask> in AT+GTCAN from 0xC0 to 0x40.
19	Fixed an issue where AT+GTOWH did not trigger the <Digital Input ID> but the location information was hidden.
20	Fixed an issue where the output remained active even after resetting the AT+GTPEO parameters using AT+GTRTO.
21	Fixed an issue where the device did not report messages as expected when <Mode> in AT+GTHUM and AT+GTTMP were both set to 3.
22	Supported automatically sending AT+CPMS command to modify the SMS storage to ME area after the device was powered on.
23	Fixed an issue where the device was not connected to the battery but the <Backup Battery Charge State> reported in +RESP:GTDMR was FF.
24	Fixed an issue where the device did not report +RESP:GTBTC message when charging after reboot.
25	Fixed an issue where the ID ELA could not be scanned when <Beacon ID Model> was set to 2 in AT+GTBID.
26	Fixed an issue where only changing the parameter <Output Status> in AT+GTPEO would activate a new waveform output.

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Item	Brief Description
27	Fixed an issue where the <Report Type> in the +RESP:GTDAT was inconsistent with the protocol.
28	Fixed an issue where the <Backup Battery On> reported in the HEX-formatted +RESP:GTINF message was incorrect.
29	Fixed an issue where the <GNSS Satellite Number> in GTUDT was greater than the <GSV Number>.
30	Fixed an issue where the server could not be connected.

Note

To upgrade the firmware from A01V23/A01V30/A02V10 to this version over the air, please upgrade it to A06V21 first and then to this version.

3.3 GV58CGR01A07V23M128

3.3.1 @Track Protocol Support

GV58CG firmware **GV58CGR01A07V23M128** supports @Track air interface protocol version 7.07. For detailed information about the protocol, please refer to the document **GV58CG@Track_Air_Interface_Protocol_v0707**.

3.3.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CGR01A07V21M128**.

Item	Brief Description
1	N/A

3.3.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CGR01A07V21M128**.

Item	Brief Description
1	Fixed an issue where the bit18, Bit19, bit20 and bit21 of parameter <Input ID Mask> in AT+GTUDF did not take effect.
2	Improved production efficiency.

Note

To upgrade the firmware from A01V23/A01V30/A02V10 to this version over the air, please upgrade it to A06V21 first and then to this version.

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3.4 GV58CGR01A07V21M128

3.4.1 @Track Protocol Support

GV58CG firmware **GV58CGR01A07V21M128** supports @Track air interface protocol version 7.07. For detailed information about the protocol, please refer to the document **GV58CG@Track_Air_Interface_Protocol_v0707**.

3.4.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEU(CG)R01A06V21M128**.

Item	Brief Description
1	Added parameter <Electric Report Mask> to the command AT+GTCAN.
2	Added Bit24 <Service Distance> and Bit28 <DTC Codes> to parameter <CAN Report Expansion Mask> in the AT+GTCAN command.
3	Added the parameter <Fast STP Mode> to the command AT+GTSSR.
4	Added type 4 to <1-wire Device Type> in +RESP:GTERI message.
5	Added mode 2 to parameter <Mode> in AT+GTHMC command.
6	Added mode 10/12 to the parameter <GNSS Working Mode> in the command AT+GTCFG.
7	Added Bit 24 <RFID> and Bit 27 <RFID Length> to the parameters <+RSP Mask> and <+EVT Mask> in the command AT+GTHRM.
8	Modified the first <Reserved> of <Sub Command> 7 to <Extend CSQ> in AT+GTRTO.
9	Added the message +RESP:GTESQ.
10	Added value 3B to <Sub Command> in AT+GTRTO.
11	Modified the <Reserved> to <Backup Battery Percentage> in the ASCII-formatted message +RESP:GTBAT.
12	Renamed the parameter <Backup Battery Level> to <Backup Battery Percentage> in the HEX-formatted message +RESP:GTBAT.
13	Added value 39 to <Message Type> in HEX report +INF.
14	Added bit6 to <INF Expansion2 Mask> in the command AT+GTHRM.
15	Added type 5/9 to the parameter <Update Type> in the command AT+GTUPD.
16	Added the parameter <RFID Report Mode> to the command AT+GTIDA.

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3.4.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEU(CG)R01A06V21M128**.

Item	Brief Description
1	Fixed an issue where the Bluetooth CAN message might be abnormal.
2	Fixed an issue where the parameter <ID> of AT+GTGEO would be reset to the default value after the device rebooted in ignition on state.
3	Fixed an issue where the range of <Output Status> in AT+GTBID was inconsistent with the protocol.
4	Optimized SMS sending function to support adding any character to the header.
5	Optimized the ability to use the default DNS Server to resolve addresses when the DNS Server address was set to 255.X.X.X.
6	Fixed an issue where the value of 1-wire temperature sensor was abnormal.
7	Fixed an issue where the output could not work as expected when the <Output ID> in AT+GTEPS was set to 0.
8	Fixed an issue where the device will reboot after Bluetooth connection.
9	Fixed an issue where the message +RESP:GTBAR would still be reported after sending AT+GTRTO-4 to reset parameters.
10	Fixed an issue where the message +RESP:GTDIS was not reported when changing the input status during the device reboot after the input status pre-reboot was saved by AT+GTPDS.
11	Optimized buffer storage to increase the number of messages saved.
12	Fixed an issue where the device reboot would be triggered by parameter <No CAN Interval> in AT+GTDOG during CAN upgrade process.
13	Fixed an issue where the serial number of buffered messages could start from 0 after device reboot.
14	Fixed an issue where the <Crash Counter> was always reported as 00 in HEX-formatted CRA message.
15	Fixed an issue where the <Total Packets> and <Current Packets> of an +RESP:GTALM message were inconsistent.
16	Fixed an issue where +RESP:GTHBM was incorrectly reported when the device failed to locate and the speed was below the set threshold.
17	Fixed an issue where the ID reported in +RESP:GTIDA was inconsistent with the printed ID on DR200 card.
18	Added support for reporting battery percentage for MAG ELA accessory.
19	Optimized the reporting interval of +RESP:GTSVR messages.
20	Fixed an issue where the report interval of +RESP:GTFRI was inaccurate when <Mode> in AT+GTIGM was set to 1.

Item	Brief Description
21	Optimized GTSVR function to improve SVR connection stability.
22	Fixed an issue where parameter settings of AT+GTPEO were not saved.
23	Fixed an issue where the HBD messages could not be resent after transmission failed.
24	Fixed an issue where the +RESP:GTTOW message was reported in motion status after reboot when the distance was not met.
25	Fixed an issue where the <Count Number> was not reset to zero after a successful FOTA upgrade.
26	Fixed an issue where the device would reboot abnormally after the device started to update the device configuration via AT+GTUPC.
27	Fixed an issue where the <Data Type> reported in message +RESP:GTCRD did not match the actual value.
28	Fixed an issue where the device backup battery was not charged after ignition on when <Power Mode> in AT+GTCFG was set to 1.

Note

To upgrade the firmware from A01V23/A01V30/A02V10 to this version over the air, please upgrade it to A06V21 first and then to this version.

3.5 GV58CEU(CG)R01A06V21M128

3.5.1 @Track Protocol Support

GV58CEU(CG) firmware **GV58CEU(CG)R01A06V21M128** supports @Track air interface protocol version 6.04. For detailed information about the protocol, please refer to the document **GV58CEU(CG) @Track Air Interface Protocol V6.04**.

3.5.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEU(CG)R01A05V12M128**.

Item	Brief Description
1	Deleted the parameters <Brake Speed Threshold>, <Delta Speed Threshold> and <Delta Heading Threshold> from the command AT+GTASC.
2	Added the parameter <Report Mode> to the command AT+GTASC.
3	Added the parameter <Format Version> to the command AT+GTRTO.
4	Added the parameter <Format Version> to the message +RESP:GTALM.
5	Added the parameter <Validity Time> to the command AT+GTDIS.

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Item	Brief Description
6	Added the parameter <ID Report Format> to the messages +RESP:GTGOT/+RESP:GTGIN.
7	Added the parameter <Advertising Data Mask> to the command AT+GTBTS.
8	Added the command AT+GTIGM.
9	Added the Bit 17 to parameter <ERI Mask> in the command AT+GTFRI.
10	Added parameter <No CAN Interval> to the command AT+GTDOG.
11	Deleted the bit12 of parameter <Bluetooth Report Mask> from the command AT+GTBTS.

3.5.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEU(CG)R01A05V12M128**.

Item	Brief Description
1	Fixed an issue where the format of message +RESP:GTBTI was inconsistent with the protocol.
2	Fixed an issue where the parameters <INF Expansion Mask> and <INF Expansion2 Mask> were not reported in the message +INF.
3	Fixed an issue where obtaining ICCID failed.
4	Fixed an issue where the buffer sequence number was not consecutive on the QMS side after a DOG reboot was occurred on the tracker side when the buffers were stored in tracker and QMS side at the same time.
5	Fixed an issue where the values of 1-wire temperature sensor were abnormal but still being reported.
6	Fixed an issue where the <GNSS Trigger Point> would not be influenced by AT+GTOWH when AT+GTOWH was enabled.
7	Fixed an issue where there was no IMEI in the reported message +RESP:GTATI.
8	Fixed an issue where the WTH300's output1 would not be stopped when the low-power alarm condition was changed to not satisfied after the new AT+GTBAS command was changed.
9	Fixed an issue where the messages could not be reported after the NTP module occupied PDP for a long time.
10	Fixed an issue where the range of parameter <INF Expansion Mask> in AT+GTHRM was inconsistent with the protocol.
11	Fixed an issue where the range of parameter <Mask> in AT+GTPDS was inconsistent with the protocol.
12	Fixed an issue where the parameters of message +RESP:GTUDT were affected by AT+GTCFG command.

Item	Brief Description
13	Fixed an issue where the range of <Index> in the +RESP:GTBAR message was inconsistent with messages +RESP:GTERI and +RESP:GTBAA.
14	Optimized SMS sending function to support adding any character to the header.
15	Fixed an issue where the previous output immediately stopped after changing the output ID when the output was triggered by AT+GTCLT alarm.
16	Fixed an issue where the DR100 card could be authorized when <Mode> was set to 2 and <ID List Type> was set to 1 in AT+GTIDA.
17	Fixed an issue where abnormal output was triggered when switching roaming and home state in AT+GTRMD.
18	Fixed an issue where the device reported a voltage value of 0 in the HEX format message to QMS when the internal battery was not connected.
19	Optimized Jamming detection algorithm.
20	Fixed an issue where the CELL LED light did not work as expected if sending a command to make paring fail within 40s after the Primary and the Ghost device were successfully paired.
21	Fixed an issue where the message +RESP:GTCAN was abnormal after the device was connected to V3.x BLE CAN.
22	Optimized AGPS offline function.
23	Optimized BLE upgrades to prevent crashes during upgrades.
24	Fixed an issue where the output triggered by AT+GTACD could not be reset by AT+GTRTO-4.
25	Fixed an issue where DNS server did not switch to the default DNS server address when using protocol specified addresses.
26	Fixed an issue where the TCP short connection was abnormal if the parameter <Connection Life> in AT+GTSRI was greater than the message reporting interval.
27	Fixed an issue where the messages +RESP:BCS and +RESP:BDS were reported abnormally after the device was connected to CAN.
28	Fixed an issue where the output status triggered by AT+GTCLT was inconsistent with the <Digital Output Status> in the +RESP:GTDOS message.
29	Fixed an issue where incorrect +RESP:GTERI message was reported when multiple temperature and humidity sensors were connected to 1-wire.

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3.6 GV58CEU(CG)R01A05V12M128

3.6.1 @Track Protocol Support

GV58CEU(CG) firmware **GV58CEU(CG)R01A05V12M128** supports @Track air interface protocol version 4.06. For detailed information about the protocol, please refer to the document **GV58CEU(CG) @Track Air Interface Protocol V5.03**.

3.6.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEU(CG)R01A04V13M128**.

Item	Brief Description
1	Added parameters <WMS301 Closed Mask> and <WMS301 Separation Mask> to the AT+GTUDF command.
2	Added the command AT+GTOWL.
3	Added the parameter <INF Expansion2 Mask> to the command AT+GTHRM.
4	Added the parameter <Network Type> to the message +RESP:GTINF.
5	Added Bit36 <Network jamming is detected>, Bit37 <Network jamming is not detected>, Bit51 <The device fixes GNSS successfully> and Bit52 <The device fails to fix GNSS> to <Input ID Mask> in AT+GTUDF.
6	Deleted the mode 1 of the parameter <Virtual Ignition Mode> from the command AT+GTVMS.
7	Modified the range of parameter <Min Threshold> to 0 — 32000 mV in the command AT+GTEPS.
8	Modified the range of parameter <Initial Hour Meter Count> to 00000:00:00 - 1193000:00:00 in the command AT+GTHMC.
9	Added the parameter <EOF> to the message +RESP:GTALM.
10	Modified the range of parameter <RAT> to 0 - 4 in the message +RESP:GTERI.

3.6.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEU(CG)R01A04V13M128**.

Item	Brief Description
1	Fixed an issue where the configuration of AT+GTLTP could be queried by AT+GTRTO.

Item	Brief Description
2	Fixed an issue where the +RESP:GTSTR message was not immediately reported when the ignition off was detected after +RESP:GTSTR message was reported.
3	Fixed an issue where some message sequence numbers were incorrect.
4	Fixed an issue where AT+GTTLS enabled messages were not reported.
5	Fixed an issue where the ignition off status did not activate GPS according to the parameter <Check Interval> in AT+GTGEO.
6	Fixed an issue where the message +RESP:GTUPD with code 301 could not be reported to the QMS server after BB firmware was successfully upgraded.
7	Fixed an issue where the <LED State> might be reported as 0 in +RESP:GTINF.
8	Optimized the AGPS Online function to improve positioning effect.
9	Fixed an issue where the <Send Time> reported in +RESP:GTPNR message was incorrect.
10	Fixed an issue where AT+GTPDS failed to detect ignition off after reboot if saving the ignition on state.
11	Fixed an issue where the device did not report +RESP:GTSTR after reboot in motion state if AT+GTPDS was enabled to save AT+GTSSR state.
12	Fixed an issue with unstable AT+GTSVR Bluetooth connection.
13	Fixed an issue where the WTH301 and WMS301 could be scanned by name.
14	Fixed an issue where the status of the CELL LED light was incorrect after a successful AT+GTSVR pairing.
15	Fixed an issue where the output was abnormal after WTH300 accessory configuration changed from meeting the low power alarm to not meeting the low power alarm.
16	Fixed an issue where abnormal output was triggered after the +RESP:GTBAA message reported by scanning WKF300 accessories.
17	Fixed an issue where the Bluetooth connection to CAN devices failed after reboot.
18	Fixed an issue where the device would reboot abnormally when SIM card was in a roaming state.
19	Fixed an issue where the +RESP:GTBAA message was not reported when WMS301 closed was detected.
20	Fixed an issue where the range of parameter <Client ID> in AT+GTMQT was inconsistent with the protocol.
21	Fixed an issue where it failed to save the value of parameter <Discard Unknown Event> in AT+GTHBM if it was changed.
22	Fixed an issue where switching the parameter <Pin Mode> of AT+GTCFG would result in incorrect reporting of +RESP:GTDIS messages.
23	Fixed an issue where the GPS was not enabled according to the parameter <Tow Interval> in AT+GTTOW if <Power Saving Mode> in AT+GTCFG was 1 or 2.

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Item	Brief Description
24	Fixed an issue where a false +RESP:GTSTP message could be reported if the device remained in motion after reboot when GTSTR state was saved by AT+GTPDS.
25	Fixed an issue with abnormal reboot during device reporting.
26	Fixed an issue where the message sending was abnormal when switching between the primary and backup servers if <Report Mode> in AT+GTSRI was 7 and TLS function was enabled.
27	Fixed an issue where abnormal +RESP:GTBTI message was reported when the device was connected with GL50B device and CAN Bluetooth accessory.
28	Fixed an issue where the same cell information would be reported in a +RESP:GTGSM message.
29	Fixed an issue where enabling AT+GTSRI and AT+GTMSI functions resulted in duplicate SMS sending.
30	Fixed an issue where ELA Bluetooth accessories were unable to trigger output.
31	Fixed an issue where the output of low battery alarm could not be triggered after changing the <Output ID> in AT+GTBAS.
32	Fixed an issue where the device was unable to report +RESP:GTGIN and +RESP:GTGOT messages after reboot if multiple AT+GTPEO commands were issued.
33	Fixed an issue where the +RESP:GTGIN message was not reported after reboot if all <GEO ID> in AT+GTGEO were configured.
34	Fixed an issue where some parameters would be lost if upgrading the device firmware over-the-air.
35	Fixed an issue where the +RESP:GTFRI messages with multiple points were reported abnormally after the ignition was off.
36	Fixed an issue where +RESP:GTPDP messages were repeatedly reported when AT+GTSRI and AT+GTMSI functions were enabled.
37	Fixed an issue where the buffered messages were not reported as expected when <Buffer Mode> in AT+GTQSS was not 0.
38	Fixed an issue where it was unable to switch between primary and backup servers for reporting when the <Report Mode> in AT+GTSRI was 7 and AT+GTTLS function was enabled if the backup server was empty.

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3.7 GV58CEU(CG)R01A04V13M128

3.7.1 @Track Protocol Support

GV58CEU(CG) firmware **GV58CEU(CG)R01A04V13M128** supports @Track air interface protocol version 3.03. For detailed information about the protocol, please refer to the document **GV58CEU(CG) @Track Air Interface Protocol V4.06**.

3.7.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEU(CG)R01A03V19M128**.

Item	Brief Description
1	Added model 5 to parameter <Accessory Model> in the command AT+GTBAS.
2	Added message +RESP:GTEUC in HEX format.
3	Added type 5 and 6 to <Power On Reason> in the message +RESP:GTPNR.
4	Added Bit 2 to parameter <Report Mode> in the command AT+GTIDA.
5	Added type 2 to <ID Repot Type> in the message +RESP:GTIDA.
6	Added the parameters <Scan Interval> and <Scan Window> to the command AT+GTBTS.
7	Added mode 4 to the parameter <Keyfob Detection Mode> in the command AT+GTBID.
8	Added Bit47 and Bit48 to the parameter <Input ID Mask> in the command AT+GTUDF.
9	Added the parameter <1-wire Data Mask> to the command AT+GTACD.
10	Added the AT+GTHUM command and the +RESP:GTHUM message.
11	Added type 3 to <1-wire Device Type> in +RESP:GTERI message.
12	Modified the description of <1-wire Device Data> in the +RESP:GTERI message.
13	Added the command AT+GTMQT.
14	Added mode 9 to the parameter <Report Mode> in the command AT+GTSRI.
15	Added parameters <Behaviour Duration>, <Discard Unknown Events>, <Cornering and Braking Threshold>, <Cornering and Braking Duration>, <Acceleration Threshold>, <Acceleration Duration>, <Brake Threshold>, <Brake Duration> and <Report Mode> to the AT+GTHBM command.
16	Added model 2 to parameter <Certificate Verification> in the command AT+GTTLS.

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3.7.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEU(CG)R01A03V19M128**.

Item	Brief Description
1	Fixed an issue where the output LED didn't work when the parameter <Tow Output ID> in the command AT+GTTOW was switched.
2	Fixed an issue where the device did not report +RESP:GTSTT-16 according to parameter <Engine OFF to Tow> when positioning failed.
3	Fixed an issue where it failed to trigger TOW after meeting the time and distance conditions if ignition was turned off in positioning failed state and then the device was moved into a successfully positioned environment.
4	Modified the default value of parameter <Bluetooth Name> in AT+GTBTS from GV58CEU_BT to GV58CEU%IMEI.
5	Optimized the AGPS Online function to improve positioning effect.
6	Fixed an issue where the reboot was not triggered again after reboot when input status did not change if <Input ID> in AT+GTDOG was set to trigger reboot and AT+GTDIS function was enabled.
7	Fixed an issue where the AT+GTGAM function did not take effect if it was enabled and <Virtual Ignition Mode> was set to 1 when the device was in GTSTT-42 state.
8	Fixed an issue where the device would fail to send the AT+GTAIS command if the value of <Min Threshold> was set bigger than <Max Threshold>.
9	Optimized the Protocol Application triggered output feature so that when a new output configuration was changed, the old output only stopped when an exit or entry condition was met.
10	Fixed an issue where the status of GNSS LED was incorrect when the <Tow Distance> in AT+GTTOW was enabled and the device was being towed.
11	Fixed an issue where +RESP:GTTOW would be reported if <TOW Distance> was not met and <Fake Tow Delay> was set to 0.
12	Fixed an issue where the waveform 1 would not stop output after the device re-entered the speed range specified by <Min Speed> and <Max Speed> after reboot when the <Mode> was set to 2 in the AT+GTSPD command and the waveform 1 was triggered after the current speed exited the speed range specified by <Min Speed> and <Max Speed>.
13	Optimized the Bluetooth UPD upgrade process.
14	Optimized 1-wire search device logic.
15	Optimized the logic of WKF300 accessories judgment.
16	Fixed an issue where the output1 could not output square waves.

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Item	Brief Description
17	Optimized the auto-synchronization process so that once the model has been set via RTO-22-1, the device will no longer auto-synchronize after the ignition is turned on as long as the model has been set successfully.
18	Fixed an issue where the device could not be stationary if <Speed Mode> in AT+GTGAM was set to 0 after it was detected that the device was moving.
19	Fixed an issue where the device failed to exit the virtual ignition after the condition was met if it entered the virtual ignition state and switched the <Virtual Ignition On Logic> when the <Virtual Ignition Mode> in AT+GTVMS was set to 7.
20	Modified the default value of the parameter <Accessory Append Mask> in the command AT+GTBAS to 7FBF.
21	Adjusted the position of parameters <+CRD Mask> and <+CAN Mask> in AT+GTHRM.
22	Fixed an issue where error was returned after sending AT+GTRTP command with parameter <URL> empty.
23	Fixed an issue where the device would reboot abnormally when connecting to the external power supply after internal battery was connected.
24	Fixed an issue where the time was incorrect after the device was rebooted abnormally in the no GPS and no GSM environment.
25	Optimized buffer file storage to solve the problem of high current.
26	Fixed an issue where the AT+GTTOW would change the status of output LED when the device engine was on.
27	Fixed an issue where two +RESP:GTUDT messages with the same time were reported after reboot if FRI was configured when the ignition was on.
28	Fixed an issue where the interval between <GNSS UTC Time> and <Send Time> in the message +RESP:GTTOW was incorrect.
29	Fixed an issue where the output waveform 1 would still be triggered after the low power alarm was detected when the <Output Status> of output1 in AT+GTBID command was set to 0.
30	Fixed an issue where the device status was incorrect after moving when <Fake Tow Delay> was set to 0 and the device went from stationary to moving in ignition off state.
31	Fixed an issue where the reserved bit of parameter <Input ID Mask> in the command AT+GTUDF read back was incorrect.

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3.8 GV58CEU(CG)R01A03V19M128

3.8.1 @Track Protocol Support

GV58CEU(CG) firmware **GV58CEU(CG)R01A03V19M128** supports @Track air interface protocol version 3.03. For detailed information about the protocol, please refer to the document **GV58CEU(CG) @Track Air Interface Protocol V3.03**.

3.8.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEUR01A02V10M128**.

Item	Brief Description
1	Added support for Accessory Model ATP100, ATP102, WRL300 and WMS301 in the AT+GTBAS command.
2	Added model 4 to parameter <Beacon ID Model> in the command AT+GTBID.
3	Added the command AT+GTMSI.
4	Added parameter <Tow Distance> to the command AT+GTTOW.
5	Added the command AT+GTTLS.
6	Added the Bit 15 to parameter <ERI Mask> in the command AT+GTFRI.
7	Added parameter <Reboot Device Type> to the command AT+GTDOG.
8	Added the command AT+GTRTP.
9	Added the command AT+GTLTP.
10	Added Bit 10, 13, 14, 15, 0E and 0F to the parameter <Alarm Type> in the message +RESP:GTBAA.
11	Added HEX format message +RESP:GTEUC.
12	Modified the default value of parameter <Mode> in AT+GTBAS to 1 and the maximum length of <Bluetooth Name> to 18.
13	Added operations of rebooting the device after upgrading the configuration over the air.

3.8.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEUR01A02V10M128**.

Item	Brief Description
1	Fixed an issue where the first +RESP:GTFRI after exiting FFC condition was not consistent with the protocol if AT+GTFFC was configured and triggered multi-point report.
2	Fixed an issue where the value of <Car Syn Status> reported in the message +RESP:GTCML was inconsistent with the protocol after issuing the command AT+GTRTO-22.
3	Fixed an issue where the device didn't work as expected when <State Mode> in AT+GTGEO was set to 1.
4	Fixed issue where the HEX format message +RESP:GTATI did not verify SACK on the terminal.
5	Fixed an issue where the <Index> 0 was overwritten in AT+GTBID when multiple <Index> were configured at the same time.
6	Fixed an issue where the messages were not reported as expected after the device was rebooted when the communication between BB firmware and BLE firmware was disconnected.
7	Fixed an issue where the UTC time and send time in the messages might be default values after upgrading device firmware version on the QMS platform.
8	Fixed an issue where the version of BLE BOOT and APP could not be detected if the BLE upgrade failed.
9	Optimized the Bluetooth UPD upgrade process.

3.9 GV58CEUR01A02V10M128

3.9.1 @Track Protocol Support

GV58CEU firmware **GV58CEUR01A02V10M128** supports @Track air interface protocol version 2.01. For detailed information about the protocol, please refer to the document **GV58CEU @Track Air Interface Protocol V2.01**.

3.9.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEUR01A01V30M128**.

Item	Brief Description
1	Added the command AT+GTUDT.
2	Added type 14 to the parameter <Accessory Type> in the command AT+GTBAS.

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Item	Brief Description
3	Added Bit 16, 17 and 18 to the parameter <Alarm Type> in the message +RESP:GTBAA.

3.9.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEUR01A02V10M128**.

Item	Brief Description
1	Fixed an issue where the time of message would reverse after the device was powered on with external power if it was powered off due to low power.
2	Fixed an issue where the messages of pre-crash were lost after the second crash when the parameter <Sampling Start> in the command AT+GTCRA was set to 1.
3	Fixed an issue where the optional parameter <Can Data> did not match the bit2 of <ERI Mask> in the +RESP:GTERI message.
4	Fixed an issue where the output 1 would not be off after the device exited the area of geo-fencing when the parameter <Mode> in command AT+GTGEO was set to 1.
5	Fixed an issue where the parameter <Result> in the message +RESP:GTUPC was not consistent with the protocol when the device received the command AT+GTUPC with wrong UA in the QMS server.
6	Fixed an issue where the multiple location points could appear in the first +RESP:GTFRI message after the function AT+GTFFC was triggered when the device was configured for multipoint reporting and the parameter <Mode> in the command AT+GTFRI was set to 1.
7	Fixed an issue where the fixed time report of the +RESP:GTFRI was retimed after the device was ignition off when the parameter <Continue Time> in AT+GTFRI was not set to 0 and <Power Saving Mode> in AT+GTCFG was set to 1 or 2.
8	Fixed an issue where the messages +RESP:GTBCS and +RESP:GTBDS would be reported constantly when the function AT+GTBTS was enabled and the function AT+GTSVR was not enabled.
9	Fixed an issue where the parameter <UTC time> in the command AT+GTTMA could not replace the UTC time of the message.
10	Fixed an issue where the values of parameters <Number> and <Report Type> in +RESP:GTFRI were inconsistent with the protocol after the function AT+GTFFC was triggered or exited when the device was configured for multipoint reporting.
11	Fixed an issue where the HEX format of the +RESP:GTCRD message could not recognize the SACK of the server, and the five identical +RESP:GTCRD messages would report to server.

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Item	Brief Description
12	Fixed an issue where the message +RESP:GTGIN or +RESP:GTGOT would not be reported when the parameter <State Mode> in the command AT+GTGEO was set to 1.
13	Fixed an issue where the configurations of the commands AT+GTDOG and AT+GTBTS would be reset to default value when the command AT+GTUPC was sent to update all configurations.
14	Fixed an issue where the value of <Duration of Ignition Off> in the message +RESP:GTIGN or +RESP:GTVGN was incorrect when the ignition was turned on for the first time after the device firmware was upgraded.
15	Deleted the parameter <Configuration Mask> from the command AT+GTRTO.
16	Modified the range of the parameter <AT Command> in command AT+GTRTO.
17	Modified the range of the parameters <Start Index> and <End Index> in command AT+GTRTO from 1-300/N to 1-300.

3.10GV58CEUR01A01V30M128

3.10.1 @Track Protocol Support

GV58CEU firmware **GV58CEUR01A01V30M128** supports @Track air interface protocol version 1.00. For detailed information about the protocol, please refer to the document **GV58CEU @Track Air Interface Protocol V1.00**.

3.10.2 New Features

The following table lists new features compared with the preceding firmware release, version **GV58CEUR01A01V23M128**.

Item	Brief Description
1	Added the parameter <Modem IMEI> to the message +RESP:GTATI.

3.10.3 Improved Features

The following table lists features or parameters that have been changed or improved compared with preceding firmware release, version **GV58CEUR01A01V23M128**.

Item	Brief Description
1	Fixed an issue where the bit1 of <Position Append Mask> in AT+GTCFG was changed to 1 when <Wrap Corner Point> in AT+GTFRI was set to 1.

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Item	Brief Description
2	Fixed an issue where the data in the message +RESP:GTERI was abnormal when <Accessory Type> was set to 10 and <Accessory Model> was set to 0 in the command AT+GTBAS.
3	Fixed an issue where the device would report the message +RESP:GTSTP immediately after reboot when the bit8 of <Mask> in AT+GTPDS was set to 1.
4	Fixed an issue where ID_ELA Bluetooth accessory could not be detected when the first MAC in <MAC List> of AT+GTBID was empty.
5	Fixed the issue where the +RESP:GTDIS was not reported when the parameter <Index> in AT+GTBAS was set to 0 after the WBC300 Bluetooth accessory input was triggered.
6	Fixed an issue where the device might reboot abnormally in some cases.
7	Fixed an issue where the <Accessory Status> in the message +RESP:GTERI was 1 but the reported value of <Raw Data> was incorrect when AT+GTBAS was configured as a Technoton fuel sensor.
8	Fixed an issue where the device remained in the ignition off state after it was rebooted in ignition off state when AT+GTPDS was set to not save the ignition state of the device.
9	Fixed an issue where the device reported abnormal MAC address in the messages +RESP:GTBCS and +RESP:GTBDS when connecting or disconnecting CAN devices.
10	Fixed an issue where the parameter <Long Operation> for setting AT+GTDOS would become invalid when all the LEDs were off.
11	Fixed an issue where it was still successful to upgrade BLE firmware over the air although the BLE firmware file was not for GV58CEU.
12	Fixed an issue where the parameter <Continue Time> in AT+GTFFC did not take effect in ignition off state after FFC function was disabled.
13	Fixed an issue where the GPS off time was inconsistent with <Continue Time> in AT+GTFRI when <Power Saving Mode> in AT+GTCFG was set to 1.
14	Fixed an issue where the HEX format of the message +RESP:GTPDP would be abnormal if CAN was enabled.
15	Fixed an issue where the <Firmware Update Time> in +RESP:GTDMR was inconsistent with the actual upgrade time of the device.
16	Fixed an issue where the <Cell ID> in +RESP:GTGSM was inconsistent with the protocol.
17	Fixed an issue where frequent charging and discharging occurred after the device was fully charged.
18	Fixed an issue where the <Last Firmware Version> in +RESP:GTDMR was incorrect after device firmware upgrade.

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Item	Brief Description
19	Fixed an issue where CAN data was not reported for HEX messages when <ERI Mask> in AT+GTFRI was set to 4 and bit25 of <+RSP Mask> in AT+GTHRM was set to 1.
20	Fixed an issue where there was no information about <Accessory Event Notification Data> in the HEX message +RESP:GTERI when the parameter <Accessory Type> was set to 1 and <Accessory Model> was set to 3.

3.11GV58CEUR01A01V23M128

3.11.1 @Track Protocol Support

GV58CEU firmware **GV58CEUR01A01V23M128** supports @Track air interface protocol version 1.00. For detailed information about the protocol, please refer to the document **GV58CEU @Track Air Interface Protocol V1.00**.

This is the initial firmware release of GV58CEU.

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