2023

AOVX

AT Commands

GA Series_V1.7

www.aovx.com

History

Revision	Date	Author	Description
V1.0	2022-06-23	Tommy	Initial
V1.1	2022-07-28	Tommy	Added netmode and updated workmode
V1.2	2022-08-09	Yuki	Upgraded layout and added band configuration
V1.3	2022-10-18	Yuki	Upgraded layout and TEMP&HUMI
V1.4	2022-10-31	Yuki	Upgraded AT+LIGHT command
V1.5	2022-12-23	Barry	New AT+TRIGGERMODE and AT+SLEEPMODE
V1.6	2023-05-20	Barry	Upgraded layout
V1.7	2023-11-23	Barry	Added AT+SAMPLEMODE and AT+VOLTAGE commands Removed the AT+MILEAGE command

Content

1. Introduction

1.1. Commands Introduction

(1) This document is described configuration commands via serial port,SMS and platform. For platform configuration, please refer to AOVX_GA Series_Cloud Platform Protocol.

(2) The serial port command needs to add the start symbol "AT+" at the start of the command, and the end symbol "\r\n" at the end of the command. SMS commands do not need to add prefix "AT+" and suffix "\r\n".The command examples in below are all commands sent via the serial port.

(3) Command keywords are case-insensitive. Punctuation symbols are an American input method. When writing text messages, please pay attention to input method switching to avoid command format errors.

1.2. AT Examples Declaration

The examples in this document are intended to provide users to know how to use AT commands and do not constitute advice or a recommendation by AOVX on the design of terminal processes, nor do they imply that the device should be set to the state in the corresponding example. Some AT commands have multiple examples, and there is no continuity or succession between these examples.

1.3. Command example

SMS command

Command: LOG=1

Reply: +LOG:1

OK

Command: LOG?

Reply: +LOG:1

OK

Platform and config tool command

Command: AT+LOG=1

Reply: +LOG:1

OK

Command: AT+LOG?

Reply: +LOG:1

OK

2. General Tracker AT Commands

2.1. AT+RESET Reboot the Device

Commands	Reply	Description
Configuration commands AT+RESET	+RESET:OK	Reset device
Query commands none		

Example

Command: AT+RESET

Reply: RESET:OK

2.2. AT+LOG Configure Log Level

Commands	Reply	Description
Configuration commands **AT+LOG=<level>**	+LOG:<level> OK	Enable nt the device log in the configuration tool (mainly used to view all the and part of log)
Query commands **AT+LOG?**	+LOG:<level> OK	Query the log level

Parameter

<level>: int type. Turn ON/OFF log

0: disable all log

1: enable all log

2(default): enable some test log

Example

Command: AT+LOG=1

Reply: +LOG:1

OK

Command: AT+LOG?

Reply: +LOG:1

OK

2.3. AT+FORMAT Restore Factory Configuration

Commands	Reply	Description
Configuration commands **AT+FORMAT=<index>**	+FORMAT:<index> OK	This command is used to restore the devices to the factory default configuration
Query commands **None**		

Parameter

<level>: int type. Restore the devices to the factory default configuration.

0: restore all

1: restore all except ID

2: restore all except ID/main IP/mileage/APN

3: restore all to factory

Example

Command: AT+FORMAT=0

Reply: +FORMAT:0

OK

3. Basic Parameters Query

3.1. AT+QTV Query Firmware Version

Commands	Reply	Description
Configuration commands **None**		
Query commands **AT+QTV?**	QTV: <firmware version> <datetime> <SDK version> <datetime> OK	This command is used to query the FW version and date time of the devices.

Parameter

<firmware version>: string type. Device firmware version.

<SDK version>: string type. Device SDK version.

<datetime>:string type. Version release date.

Example

Command: AT+QTV?

Reply: +QTV:AOVX_GM100-GL_H0.A_BG95M3LAR02A04_V2.0.6:v02

Date:16:43:47 May 19 2023

SDK:5227

Date:2021/08/27 18:13:27

3.2. AT+QINFO Query Device Information

Commands	Reply	Description
Configuration commands **none**	none	
Query commands **AT+QINFO?**	+QINFO: ID:<id> NET:<operator>,<netmode> CSQ:<csq> GNSS:<gnss status> IP:<index>:<ip>:<port>:<link status> Report:<report interval> Sample:<sample interval> Wakeup:<wakeup interval> APN:<apn>:<name>:<password> OK	Query the basic parameters of devices

Parameter

<id>: device ID

<operator>: network operator

<netmode>: network mode

<csq>: signal strength

<gnss status>: fixed/unfixed

<index>: server ID

<ip>: server domain or IP

<port>: server port

<link status>: the connection status of serve

<report interval>: device report interval

<sample interval>:device sample interval

<wakeup interval>:wake up interval for sensors

<apn>: APN

<name>: user name of APN

<password>: password of APN

Example

Command: AT+QINFO?

Reply: +QINFO:

ID: 344050029763

Net:"CHINA MOBILE",LTE

CSQ:22

GNSS:0

IP:0:124.223.60.234:6608:connected

IP:1:120.24.26.10:6608:connected

Report:3600

Sample:3600

Wakeup:10

APN:america.bics::

OK

3.3. AT+QIMEI Query IMEI

Command	Reply	Description
Configuration commands **none**	none	Query IMEI number of device
Query commands **AT+QIMEI?**	+QIMEI:<imei> OK	

Parameter

<imei>: string type. IMEI of the device.

Example

Command: AT+QIMEI?

Reply: +QIMEI:866344050029763

OK

3.4. AT+QICCID Query ICCID

Commands	Reply	Description
Configuration commands **none**	none	Query ICCID
Query commands **AT+QICCID?**	+QICCID:<iccid> OK	

Parameter

<iccid>: string type. iccid of the SIM card

Example

Command: AT+QICCID?

Reply: +QICCID:898604A6102181622517

OK

3.5. AT+QBS Query Main Base Station Information

Commands	Reply	Description
Configuration commands **none**	none	Query main base station information
Query commands **AT+QBS?**	+QBS:<lac>,<ci> OK	

Parameter

<mcc> Mobil country code

<mnc> Mobil network code

<ci> Cell identity

<lac> location area code

<rssi> Received signal strength indication

Example

Command: AT+QBS?

Reply: +QBS:460,0,85118aa,550b,-88

OK

3.6. AT+QBAT Query Battery Charge Status

Commands	Reply	Description
Configuration commands **none**	none	
Query **AT+QBAT?**	+QBAT:<status> OK	Check battery charge status <status>: charging: the battery is charging full: the battery is fully charged no: the device is uncharged

Parameter

<status> string type. Charge status of battery

Charging: the battery is charging

Full: the battery is fully charged

No: the device is uncharged

Example

Command: AT+QBAT?

Reply: +QBAT:full

OK

3.7. AT+QTIME Query Date and Time

Commands	Reply	Description
Configuration commands **none**	none	Query date and time
Query commands **AT+QTIME?**	+QTIME:<time> OK	

Parameter

<time> date and time of the device

Example

Command: AT+QTIME?

Reply: +QTIME:2023/05/20 15:05:59

OK

3.8. AT+GNSS Query GNSS status

Commands	Reply	Description
Configuration commands	/	/
Query commands **AT+GNSS?**	+GNSS:<status>,<latitude>,<longitude>,<viewstar1>,<viewstar2>,<posstar>,<CN>|<CN>|<CN>|<CN>|<CN>|<CN>|<CN>|<CN> OK	Query GNSS status

Parameter

<status> string type. GPS fix status

Fix: fixed successful

Unfix: unfixed

<latitude>: floating type; latitude

<longitude>: floating type; longitude

<viewstar1>: int type; number of visible satellites

<viewstar2>: int type; number of BEIDOU/GLONASS visible satellites

<posstar>: int type; number of fixed satellites

<CN> int type;visible satellite signal strength, a total of 8 are displayed in order of strength, less than 8 complement 0

Example

Command: AT+GNSS?

Reply: +GNSS:fix,31.832945,117.095474,8,1,6,43|42|38|38|38|37|30|27

OK

3.9. AT+QADC Query Light Level and Battery Voltage

Commands	Reply	Description
Query commands **none**	none	Query light level& battery voltage.
Query commands **AT+QADC?**	+QADC:<light level>,<battery vol> OK	

Parameter

<light level> int type;the voltage detected by photistor. Unit in mV.

<battery vol> int type;battery voltage. Unit in mV.

Example

Command: AT+QADC?

Reply: +QADC:896,4158

OK

3.10. AT+BLIND Query Buffer Data Status

Commands	Reply	Description
Configuration commands **AT+BLIND=<value>**	+BLIND：OK	Clean buffer data
Query commands **AT+BLIND?**	+BLIND:cnt:<cnt>,len:<len>,loss:<loss>,rpos0:<pos>,rpos1:<pos>,wpos0:<pos>,wpos1:<pos> OK	Query buffer data

Parameter

Query buffer data information

<value>: int type.Set 0

<cnt>: int type. Total number of buffer data

<len>: int type. Total length of buffer

<loss>: int type. Number of discarded buffer data after full storage

<rpos>: int type. Read offset address

<wpos>: int type. Write offset address

Example

Command: AT+BLIND=0

Reply: +BLIND:OK

Command: AT+BLIND?

Reply: +BLIND:cnt,0 len,0 rpos,64 wpos,64

OK

3.11. AT+QGSENSOR Query Sensor Status

Commands	Reply	Description
Configuration commands **none**	none	
Query commands **AT+QGSENSOR?**	+QGSENSOR:<id>,<x>,<y>,<z> OK	Query the id and xyz values of the G sensor. Unit in mg.

Parameter

<id>: int type. ID of G-sensor

<x>: gravitational acceleration of x-axis. Unit in mg.

<y>: gravitational acceleration of y-axis. Unit in mg.

<z>: gravitational acceleration of z-axis.Unit in mg.

Example

Command: AT+QGSENSOR?

Relzply: +QGSENSOR:17,-64,-32,1040

OK

3.12. AT+ID Query ID

Commands	Reply	Description
Configuration commands **none**	none	
Query commands **AT+ID?**	+ID:<id> OK	Query the device ID

Parameter

<id>: int type. Devide id.

Example

Command: AT+ID?

Reply: +ID:344050029763

OK

4. Basic Parameters Configuration

4.1. AT+IP Configure IP and Port

Commands	Reply	Description
Help commands **AT+IP=?**	index:	The port is configured as 0 to cancel this server. It takes effect immediately after configuration.
Configuration command **AT+IP=<index>,<ip>,<port>**	+IP:<index>,<ip>,<port> OK	
Query command **AT+IP?**	+IP:<index>,<ip>,<port> OK	Query the IP and port of the device

Parameter

<index>: int type. Configure server

0: main server

1: backup server

<ip>: IP address of the server, IP supports domain names

Command: AT+IP=0,120.24.26.10,6608

Reply: +IP:0,120.24.26.10,6608

OK

Command: AT+IP?

Reply: +IP:

0,120.24.26.10,6608

1,120.24.26.10,6608

2,0,0

OK

<port>: port address of the server,Ignore this server if you set 0.

Example

4.2. AT+TIMEGAP Configure the Reporting Interval

Commands	Reply	Description
Configuration commands **AT+TIMEGAP=<index>,<time>**	+TIMEGAP:<index>,<time> OK	configure the sampling/reporting interval of the device
Query commands **AT+TIMEGAP?**	+TIMEGAP:report,<time>,sample,<time>,wakeup,<time>,wakeupmax,<time> OK	Query the sampling/reporting interval of the device

Parameter

<index>: int type. Sampling/reporting.

0: report interval

1: sample interval

<wakeup>: Interval of sensor information update

<wakeupmax>: Maximum interval for sensor information update

<time>: interval; unit in second. After configuration, the next report will take effect.

Example

Command: AT+TIMEGAP=0,3600

Reply: +TIMEGAP:report,3600

OK

Command: AT+TIMEGAP?

Reply: +TIMEGAP:report,3600 sample,360 wakeup,10 wakeupmax,600

OK

4.3. AT+MOTION Configure Motion Parameters

Commands	Reply	Description
Configuration commands **AT+MOTION=<count>,<time>,<timegap>**	+MOTION:<count>,<time>,<timegap> OK	A motion event will be reported if the number of vibration events reaches <count> in the <time>. The time interval until the next alarm is <timegap> Unit in seconds
Query commands **AT+MOTION?**	+MOTION:<count>,<time>,<timegap> OK	

Parameter

<count> int type. When the device vibrates <count> times within the specified <time>, the device will be triggered.

<time>: int type. When the device vibrates <count> times within this time, the device will be triggered.

<timegap>:int type. The time interval between the next alarm of the device.

Command: AT+MOTION=3,10,300

Reply: +MOTION:3,10,300

OK

Command: AT+MOTION?

Reply: +MOTION:3,10,300

OK

4.4. AT+VIBPARAM Configure Vibration Parameters

Commands	Reply	Description
Configuration commands **AT+VIBPARAM=<enable>,<range>,<sensitivity>**	+VIBPARAM:<enable>,<range>,<sensitivity> OK	Configure the enable/disable, range and sensitivity of the vibration.
Query commands **AT+VIBPARAM?**	+VIBPARAM:<enable>,<range>,<sensitivity> OK	Query the enable/disable, range and sensitivity of the vibration.

Parameter

<enable>: int type. Enable/disable the vibration;

0: disable

1: enable

<range>: int type. range of the vibration;

0: 2g

1: 4g

2: 8g

3: 16g

<sensitivity>: int type; sensitivity of the vibration;threshold: 0~255.

Example

Command: AT+VIBPARAM=1,1,100

Reply: +VIBPARAM:1,1,100

OK

Command: AT+VIBPARAM?

Reply: +VIBPARAM:1,1,100

OK

4.5. AT+APN Configure APN

Commands	Reply	Description
Configuration commands **AT+APN=<apn>,<name>,<password>**	+APN:<apn>,<name>,<password> OK	Configure access point name(APN), user name and password
Query commands **AT+APN?**	+APN:<apn>,<name>,<password> OK	Query access point name(APN), user name and password

Parameter

<apn>: string type; access point name(APN)

<name>: string type; user name of APN

<password>: string type; password of APN

Leave <apn>/<name>/<password> empty to clear the corresponding fields.

Example

Command: AT+APN=123,123,123

Reply: +APN:123,123,123

OK

Command: AT+APN?

Reply: +APN:123,123,123

OK

4.6. AT+TIMEZONE Configure Time Zone

Commands	Reply	Description
Configuration commands **AT+TIMEZONE=<zone>**	+TIMEZONE:<zone> OK	configure time zone
Query commands **AT+TIMEZONE?**	+TIMEZONE:<zone> OK	query time zone

Parameter

<timezone>: int type; device time zone; the range of time zone: [-11,12]

Example

Command: AT+TIMEZONE=8

Reply: +TIMEZONE：8

OK

Command: AT+TIMEZONE?

Reply: +TIMEZONE：8

OK

4.7. AT+QNMEA enable/disable NMEA Sentences

Commands	Reply	Description
Configuration commands **AT+QNMEA**	+QNMEA:<status> OK	Enable/disable NMEA sentence
Query commands **none**	none	

Parameter

<status>: status of NMEA sentence

Yes: enable

No: disable

Example

Command: AT+QNMEA

Reply: +QNMEA:yes

OK

4.8. AT+SAMPLEMODE Configure Sampling Mode

Commands	Reply	Description
Configuration commands **AT+SAMPLEMODE=<enable>, <reserved>**	+SAMPLEMODE:<enable>,<reserved> OK	
Query commands **AT+SAMPLEMODE?**	+SAMPLEMODE:<enable>,<reserved> OK	

Parameter

<enable> int type。enable/disable sampling mode;

0: disable

1: enable

<reserved> int type。The retention parameter is not temporarily defined.。

Example

Command: AT+SAMPLEMODE=0,0

Reply: +SAMPLEMODE：0,0

OK

Command: AT+SAMPLEMODE?

Reply: +SAMPLEMODE：0,0

OK

4.9. AT+FOTA Start FOTA Upgrade

Commands	Reply	Description
Configuration commands **AT+FOTA=[type],[version],[url]**	+FOTA:<type>,<version>,<url> OK	upgrade firmware
Query commands **None**		

Parameter

<type>: int type; OTA upgrade type;

0: app upgrade type

1: core upgrade type

<version>:target firmware version

<url>:

full http url for fota

Example

Command:
AT+FOTA=AT+FOTA=0,AOVX_GX100-XX_H2.0_V2.0.6,http://18.139.115.64:8080/file/Firmware_Jt808_AOVX/20230519/AOVX_GX100-XX_H2.0_V2.0.6_v02.bin

Reply:
FOTA:0,AOVX_GX100-XX_H2.0_V2.0.6,http://18.139.115.64:8080/file/Firmware_Jt808_AOVX/20230519/AOVX_GX100-XX_H2.0_V2.0.6_v02.bin

OK

4.10. AT+GNSSENABLE Enable/Disable GNSS

Commands	Reply	Description
Configuration commands **AT+GNSSNABLE=<index>**	+GNSSENABLE:<index> OK	Command for enable/disable GNSS
Query commands **AT+GNSSENABLE?**	+GNSSENABLE:<index> OK	Query command for GNSS status

Parameter

<index>: int type; enable/disable GNSS;

0: disable

1: enable

Example

Command: AT+GNSSENABLE=1

Reply: +GNSSENABLE:1

OK

Command: AT+GNSSENABLE?

Reply: +GNSSENABLE:1

OK

4.11. AT+WIFIENABLE Enable/Disable WIFI

Commands	Reply	Description
Configuration commands **AT+WIFIENABLE=<enable>,<scantime>**	+WIFIENABLE:<enable>,<scantime> OK	Enable/disable WIFI configure scantime
Query commands **AT+WIFIENABLE?**	+WIFIENABLE:<enable>,<scantime> OK	query the status of WIFI and scan time

Parameter

<enable>: int type; enable/disable WIFI

0: disable

1: enable

<scantime>: int type; WIFI signal scantime. unit in second.

Example

Command: AT+WIFIENABLE=1,10

Reply: +WIFIENABLE:1,10

OK

Command: AT+WIFIENABLE?

Reply: +WIFIENABLE:1,10

OK

4.12. AT+BTENABLE Enable/Disable Bluetooth

Commands	Reply	Description
Configuration commands **AT+BTENABLE=<enable>,<scantime>**	+BTENABLE:<enable>,<scan time> OK	Enable/disable Bluetooth configure scantime
Query commands **AT+BTENABLE?**	+BTENABLE:<enable>,<scan time> OK	query the status of Bluetooth and scan time

Parameter

<enable>: int type; enable/disable BT

0: disable

1: enable

<scantime>: int type; BT signal scantime. unit in second.

Example

Command: AT+BTENABLE=1,10

Reply: +BTENABLE:1,10

OK

Command：AT+BTENABLE?

Reply: +BTENABLE:1,10

OK

4.13. AT+REPORTMASK Set Report Mask for 0x0200 Package

Commands	Reply	Description
Configuration commands **AT+REPORTMASK=<mask>**	+REPORTMASK:<mask> OK	Configure the report mask
Query commands **AT+REPORTMASK?**	+REPORTMASK:<mask> OK	Query the report mask

Parameter

<mask>: int type. Each report mask corresponds to one binary bit, 15 bits in total. Report mask in decimal notation.

Bit0: gnss

Bit1:mileage

Bit2:mobile network signal

Bit3:the number of satellites used by gnss

Bit4:main cell station information

Bit5:reserved

Bit6:reserved

Bit7:firmware version

Bit8:bluetooth infomation

Bit9:wifi infomation

Bit10:reserved

Bit11:trigger types and sensor information

Bit12:battery infomation

Bit13:device infomation

Bit14:auxiliary information

Threshold: 0-32767

Example

Command: AT+REPORTMASK=32767

Reply: +REPORTMASK:32767 (gps:1 mile:1 csq:1 gpsnum:1 bs:1,1 fw:1 bt:1 wifi:1 sensor:1 battery:1 devinfo:1 assist:1)

OK

Command: AT+REPORTMASK?

Reply: +REPORTMASK:32767 (gps:1 mile:1 csq:1 gpsnum:1 bs:1,1 fw:1 bt:1 wifi:1 sensor:1 battery:1 devinfo:1 assist:1)

OK

4.14. AT+SENSORMASK Set Sensor Mask for 0x0200 Package

Commands	Reply	Description
Configuration commands **AT+SENSORMASK=<mask>**	+SENSORMASK:<mask> OK	
Query commands **AT+SENSORMASK?**	+SENSORMASK:<mask> OK	

Parameter

<mask>: int type; each report mask corresponds to one binary bit, 5 bits in total. Report mask in decimal notation.

Bit0: light

Bit1: temperature

Bit2: humidity

Bit3: acceleration value

Bit4: sensor threshold

Threshold： 0-31

Example

Command: AT+SENSORMASK=31

Reply: +SENSORMASK:31 (light:1 temp:1 humi:1 acce:1 limit:1)

OK

Command: AT+SENSORMASK=31

Reply: +SENSORMASK:31 (light:1 temp:1 humi:1 acce:1 limit:1)

OK

4.15. AT+TEMPRANGE Set Temperature Threshold

Commands	Reply	Description
Configuration commands **AT+TEMPRANGE=**<tmax>,<tmin>	+TEMPRANGE:<tmax>,<tmin> OK	Configure the maximum and minimum values for temperature alarms, which will trigger an alarm when the threshold range is exceeded.
Query commands **AT+TEMPRANGE?**	+TEMPRANGE:<tmax>,<tmin> OK	Query the threshold of temperature alarm

Parameter

<tmax>: int type; upper temperature limit

<tmin>: int type; lower temperature limit

Example

Command: AT+TEMPRANGE=40,0

Reply: +TEMPRANGE:40,0

OK

Command: AT+TEMPRANGE?

Reply: +TEMPRANGE:40,0

OK

4.16. AT+HUMIRANGE Set Humidity Threshold

Commands	Reply	Description
Configuration commands **AT+HUMIRANGE=**<hmax>,<hmin>	+HUMIRANGE:<hmax>,<hmin> OK	Configure the maximum and minimum values for humidity alarms, which will trigger an alarm when the threshold range is exceeded.
Query commands **AT+HUMIRANGE?**	+HUMIRANGE:<hmax>,<hmin> OK	Query the threshold of humidity alarm

Parameter

<hmax>: int type; upper humidity limit

<hmin>: int type; lower humidity limit

Example

Command: AT+HUMIRANGE=40,0

Reply: +HUMIRANGE:40,0

OK

Command: AT+HUMIRANGE?

Reply: +HUMIRANGE:40,0

OK

4.17. AT+VOLTAGE Set Configure the low-voltage protection

Commands	Reply	Description
Configuration commands **AT+VOLTAGE=<cutvol>,<lowvol>**	+VOLTAGE:<cutvol>,<lowvol> OK	When the voltage is less than or equal to the cut-off voltage, the equipment module will no longer work (in the G series, when the voltage is above the cut-off voltage) At low voltage, the equipment module will return to operation (Series A only)
Query commands **AT+VOLTAGE?**	+VOLTAGE:<cutvol>,<lowvol> OK	Example 2.9V=29x0.1V

Parameter

<cutvol> int type。Cut-off voltage, in a unit of 0.1V.

<lowvol> int type。Low voltage, and is used in a unit of 0.1V.

Example

Command: AT+VOLTAGE=29,31 Note: The cut-off voltage is 2.9V, and the low voltage is 3.1V

Reply: +VOLTAGE：29,31

OK

Command: AT+HUMIRANGE?

Reply: +VOLTAGE：29,31

OK

5. Modes Configuration and Query

5.1. AT+GNSSMODE Set the GNSS galaxy

Commands	Reply	Description
Configuration commands **AT+GNSSMODE=<galaxy>,<reserve>,<reserve>**	+GNSSMODE:<galaxy>,<reserve>,<reserve> OK	
Query commands **AT+GNSSMODE?**	+GNSSMODE:<galaxy>,<reserve>,<reserve> OK	

Parameter

<galaxy>: int type; Select GNSS type.

0: gps+bd

1: gps+glo

2: gps+gal

reserve: int type; 0.

Example

Command; AT+GNSSMODE=1,0,0

Reply: +GNSSMODE:1,0,0

OK

Command: AT+GNSSMODE?

Reply: +GNSSMODE:1,0,0

OK

5.2. AT+BTMODE Set Bluetooth Mode and Mask

Commands	Reply	Description
Configuration commands **AT+BTMODE=<mode>,<mask>**	+BTMODE:<mode>,<mask>(N:<value>F:<value>V:<value>T:<value>H:<value>S:<value>) OK	Configure BT mode* and report mask(BT mode is under development ,set 0 as default)
Query commands **AT+BTMODE?**	+BTMODE:<mode>,<mask>(N:<value>F:<value>V:<value>T:<value>H:<value>S:<value>) OK	query report mask of the device

Parameter

<mode>: int type. Reserved, set 0 as default.

<mask>: int type; each report mask corresponds to one binary bit, 15 bits in total. Report mask in decimal notation.

Bit0: Bluetooth name

Bit1: firmware version of BT nodes

Bit2: voltage of BT nodes

Bit3: temperature of BT nodes

Bit4: humidity of BT nodes

Bit5: acceleration value of BT nodes

Bit6-7: reserved

Threshold: 0-63

N: Name

F: FwVer

V: Voltage

T: Temperature

H: Humidity

A: Acceleration

<value>: int type; selected/unselected。

0: unselected

1: selected

Example

Command: AT+BTMODE=0,63

Reply: +BTMODE:0,63(N:1 F:1 V:1 T:1 H:1 S:1)

OK

Command: AT+BTMODE?

Reply: +BTMODE:0,63(N:1 F:1 V:1 T:1 H:1 S:1)

OK

5.3. AT+REPORTMODE Set Report Transmission Protocol Mode

Commands	Reply	Description
Configuration commands **AT+REPORTMODE=<index>,<mode>**	+REPORTMODE:<index>,<mode> OK	configure the report transmission protocol
Query commands **AT+REPORTMODE?**	+REPORTMODE:<index>,<mode> OK	query the report transmission protocol

Parameter

<index>: int type; the network protocol server which need to configure.

0: int type; main server;

1: int type; backup server;

<mode>: int type; network protocol;

0: TCP

1: UDP

2: MQTT

Example

Command: AT+REPORTMODE=0,0

Reply: +REPORTMODE:0,0,1,0

OK

AT+REPORTMODE?

Reply: +REPORTMODE:0,0,1,0

OK

5.4. AT+WORKMODE Set Work Mode

Commands	Reply	Description
Configuration commands **AT+WORKMODE=<mode>**	+WORKMODE:<mode> OK	configure work mode of the device
Query commands **AT+WORKMODE?**	+WORKMODE:<mode> OK	query work mode of the device

Parameter

<mode>: int type;select work mode of device(only Mode 2 and Mode 4 is supported)

0: Periodic mode*

1: Trigger mode*

2: Tracking mode+Trigger mode. (The minimum reporting time for this mode: 60s when sleepmode=0. 10s when sleepmode=1)

3: Clock mode+Trigger mode*

4: Periodic mode+Trigger mode(The minimum reporting time for this mode: 360s)

Example

Command: AT+WORKMODE=4

Reply: +WORKMODE:4

OK

Command: AT+WORKMODE?

Reply: +WORKMODE:4

OK

5.5. AT+TEMPHUMI Set temperature humidity Mode

Commands	Reply	Description
Configuration commands **AT+TEMPHUMI=<enable>,<timegap>**	+TEMPHUMI:<enable>,<timegap> OK	
Query commands **AT+TEMPHUMI?**	+TEMPHUMI:<enable>,<timegap> OK	

parameter

<enable>: int type; enable/disable BT

0: disable

1: enable

<timegap>: int type; report interval of temperature and humidity alarm .Unit in second.

Example

Command: AT+TEMPHUMI=1,60

Reply: +TEMPHUMI:1,60

OK

Command: AT+TEMPHUMI?

Reply: +TEMPHUMI:1,60

OK

5.6. AT+LIGHT Set Light Mode and Threshold

Commands	Reply	Description
Configuration commands **AT+LIGHT=**<enable>,<threshold>,<timegap>	+LIGHT:<enable>,<threshold>,<timegap> OK	
Query commands **AT+LIGHT?**	+LIGHT:<enable>,<threshold>,<timegap> OK	

Parameter

<enable>: int type; enable/disable light mode.

0: disable

1: enable

<threshold>: light threshold. 0~1000

<timegap>: int type; light report interval ,unit in second.

Example

Command: AT+LIGHT=1,500,60

Reply: +LIGHT:1,500,60

OK

Command: AT+LIGHT?

Reply: +LIGHT:1,500,60

OK

5.7. AT+NETMODE Set NETMODE

Commands	Reply	Description
Configuration commands **AT+NETMODE=<mode>**	+NETMODE:<mode> OK	
Query commands **AT+NETMODE?**	+NETMODE:<mode> OK	

Parameter

<mode>: int type; configure the network mode of device module.

0: AUTO. Support for all network modes of the module;

1: GSM only

2: LTE(CAT1/CATM) only

3: CATM+NB only

4: GSM+NB only

5: NB only

NOTE:

GL/AL support 0,1,2 mode;

GM/AM support 0,1,2,3,4,5 mode

Example

Command: AT+NETMODE=0

Reply: +NETMODE:0

OK

Command: AT+NETMODE?

Reply: +NETMODE:0

OK

5.8. AT+TRIGGERMODE Configure The Conditional Trigger Function

Commands	Reply	Description
Configuration commands **AT+TRIGGERMODE** **=<duration>,<condition>,<report>,<sampling>,<workmode>**	+TRIGGERMODE:<duration>,<condition>,<report>,<sampling>,<workmode> OK	Devices will enter trigger reporting mode after enable trigger mode; eg. Set the reporting/sampling period as 3600s. When AT+TRIGGERMODE=3600,1,600,600,4 Devices will change the sampling/reporting interval to 600s when detected motion alarm. WorkMode=4. After one hour passes, the reporting period and sampling period of the device returns to the previous con
Query commands **AT+TRIGGERMODE** **?**	**+**TRIGGERMODE:<duration>,<condition>,<report>,<sampling>,<workmode> OK	

Parameter

<duration>: int type; duration of the device that changes the reporting interval after the trigger condition is reached.(disable the mode if the value is 0)

<condition>: int type; trigger types for conditional trigger mode

0: disable

1: LOW_POWER*(under development)

2: MOTION(motion trigger)

3: CRASH*(under development)

4: LIGHT(light trigger)

5: TEMP_HUMI(temperature and humidity trigger)

6: TEMP(temperature trigger)

7: HUMI(humidity trigger)

<report> int type; reporting interval of the device after entering conditional trigger mode

<sampling>: int type; sampling interval of the device after entering conditional trigger mode

<workmode>: int type; the work mode of the device after entering the conditional trigger mode

Example

Command: AT+TRIGGERMODE=3600,2,600,600,4

Reply: +TRIGGERMODE:3600,2,360,360,4

OK

Command: AT+TRIGGERMODE?

Reply: +TRIGGERMODE:3600,2,360,360,4

OK

5.9. AT+SleepMode Sleep Mode In TRIGGERMOD=2

Command	Reply	Description
Configuration commands **AT+SLEEPMODE=<mode>**	+SLEEPMODE:<mode> OK	<mode>: default is 0: 0: The power consumption of device module is lower in this mode. (The network module will sleep after device completed report) 1: The module is working properly. (The network module does not sleep after device finished report).
Query commands **AT+SLEEPMODE?**	+SLEEPMODE:<mode> OK	Eg. The minimum value of sampling/reporting interval is 60s when workmode=2, sleepmode=2 the minimum value of sampling/reporting interval is 10s when workmode=2, sleepmode=1

Parameter

<mode>: int type; configure the sleep mode of the module for the device in tracking mode + trigger mode

0: The power consumption of device module is lower in this mode. (The module will sleep after device finished report)

1: The module is working properly. (The module does not sleep after device finished report).

Example

Command: AT+SLEEPMODE=0

Reply: +SLEEPMODE:0

OK

Command: AT+SLEEPMODE?

Reply: +SLEEPMODE:0

OK

5.10. AT+BTFENABLE Enable/Disable BT scanfilter

Command	Reply	Description
Configuration commands **AT+BTFENABLE=<mode>**	+BTFENABLE:<mode> OK	
Query commands **AT+BTFENABLE?**	+BTFENABLE:<mode> OK	

Parameter

<mode>: int type; enable/disable BT scanfilter. Enable by default.

0: disable

1: enable

Example

Command: AT+BTFENABLE=1

Reply: +BTFENABLE:1

OK

Command: AT+BTFENABLE?

Reply: +BTFENABLE:1

OK

5.11. AT+BTFRSSI Set Bluetooth Signal Value Filtering

Command	Reply	Description
Configuration commands **AT+BTFRSSI=<value>**	+BTFRSSI:<value> OK	Filters Bluetooth signals from -100 to 0 according to the signal strength of Bluetooth. Reserved the scanned Bluetooth devices when the signal strength is greater than or equal to value
Query commands **AT+BTFRSSI?**	+BTFRSSI:<value> OK	

Parameter

<value>: int type;Configure the device Bluetooth signal value filtering parameters. Default is 0

0: disable bluetooth signal value filtering

-X: reserve bluetooth bands with signal values greater than or equal to -X.

Example

Command: AT+BTFRSSI=0

Reply: +BTFRSSI:0

OK

Command: AT+BTFRSSI?

Reply: +BTFRSSI:0

OK

5.12. AT+BTFMAC Set Bluetooth MAC Address Filtering

Command	Reply	Description
Configuration commands **AT+BTFMAC=<mac>,<mac>,<mac>**	+BTFMAC:<mac>,<mac>,<mac> OK	Filter Bluetooth devices by Bluetooth MAC, up to three can be configured, keep the scanned configured Bluetooth devices
Query commands **AT+BTFMAC?**	+BTFMAC:<mac>,<mac>,<mac> OK	

Parameter

<mac>: string type;Configure device Bluetooth MAC filtering parameter. Default parameter is 000000000000,000000000000,000000000000. Disable the Bluetooth MAC Address Filtering in default. The maximum number of configurable Bluetooth devices is 3.

Example

Command; AT+BTFMAC=C8DA81E3FE2F,E95E21D9C3E8,000000000000

Reply: +BTFMAC:C8DA81E3FE2F,E95E21D9C3E8,000000000000

OK

Command: AT+BTFMAC?

Reply: +BTFMAC:C8DA81E3FE2F,E95E21D9C3E8,000000000000

OK

5.13. AT+BTFNAME Set Bluetooth Name Filtering

Command	Reply	Description
Configuration commands **AT+BTFNAME=<name>,<name>,<name>**	+BTFMAC:<name>,<name>,<name> OK	Filter Bluetooth devices by Bluetooth name, up to three can be configured, keep the scanned configured Bluetooth devices
Query commands **AT+BTFNAME?**	+BTFMAC:<name>,<name>,<name> OK	

Parameter

<name>: string type;Configure device Bluetooth name filtering parameter; the maximum Bluetooth name is 11 characters. Disable Bluetooth name filtering if the name is blank;

Example

Command: AT+BTFNAME=,,

Reply: +BTFNAME:,,

OK

Command: AT+BTFNAME?

Reply: +BTFNAME:,,

OK

5.14. AT+BTFUUID set Bluetooth UUID filtering

Command	Reply	Description
Configuration commands **AT+BTFUUID=<uuid>,<uuid>,<uuid>**	+BTFUUID:**<uuid>,<uuid>,<uuid>** OK	Filter Bluetooth devices by Bluetooth UUID, up to three can be configured, keep the scanned configured Bluetooth devices
Query commands **AT+BTFUUID?**	+BTFUUID:**<uuid>,<uuid>,<uuid>** OK	

parameter

<uuid>: string type; configure device Bluetooth name filtering parameter; the maximum Bluetooth name is 11 characters. Disable Bluetooth UUID filtering if the UUID is 0000;

Example

Command: AT+BTFUUID=AAFE,ABFE,0000

Reply: +BTFUUID:AAFE,ABFE,0000

OK

Command: AT+BTFUUID?

Reply: +BTFUUID:AAFE,ABFE,0000

OK

5.15. AT+BTRAWENABLE Set Bluetooth raw data transmission

Commands	Reply	Description
Configuration Command **AT+BTRAWENABLE=<enable>**	+BTRAWENABLE:**<enable>** OK	Enable uploading of 0900 packets (0900 packets are used to upload Bluetooth data that needs to be transmissed)
Query Command **AT+BTRAWENABLE?**	+BTRAWENABLE:**<enable>** OK	

Only for Bluetooth customization customer

Parameter

<enable>: int type; enable/disable Bluetooth transmission;

0: disable

1: enable

Command: AT+BTRAWENABLE=0

Reply: +BTRAWENABLE：0

OK

Command: AT+BTRAWENABLE?

Reply: +BTRAWENABLE：0

OK

Example

6. Module AT Commands Transparent Transmission

6.1. AT+CMD Module AT Command Transparent Transmission

Commands	Reply	Description
Configuration commands **AT+CMD=<command>**	<at respond>	Module AT transparent transmission command
Query commands **none**	none	

Parameter

<command>: AT commands supported by the module.

<at respond>:Response for module AT command

Response

Command: AT+CMD=AT+CGREG?

Reply: +CGREG: 0,1

OK

6.2. AT+QCFG=band Configure Frequency Band

6.2.1. GM100/AM300

AT+QCFG="band" Configure network search bands

This Write Command configures the frequency bands to be searched for or queries the current setting.

AT+QCFG="band" Configure network search Band	
Write Command **AT+QCFG="band"[,<GSM_bandval>,<eMTC_bandval>,<NB-IoT_bandval>[,<effect>]]**	Response If the optional parameters are omitted, query the current setting: +QCFG: "band",<GSM_bandval>,<eMTC_bandval>,<NB-IoT_bandval>
	OK
	If any of the optional parameters is specified, configure the frequency bands to be searched for: OK
	If there is an error related to ME functionality: +CME ERROR: <err>
	If there is any other error: ERROR
Maximum Response Time	300 ms
Characteristics	<effect> determines when the command will take effect. The configurations will be saved automatically.

Parameter	
<GSM_bandval> A	hexadecimal value that specifies the GSM frequency band (e.g.: 0xa = 0x2(DCS1800) + 0x8(PCS1900)). If it is set to 0, it means not to change GSM frequency band. 0 No change 0x1 EGSM900 0x2 DCS1800 0x4 GSM850

	0x8 PCS1900 0xF All of the supported bands above
<eMTC_bandval> A	hexadecimal value that specifies the eMTC frequency band (e.g.: 0x15 = 0x1(LTE B1) + 0x4(LTE B3) + 0x10(LTE B5)). If it is set to 0, it means not to change the eMTC frequency band. 0 No change 0x1 (BAND_PREF_LTE_BAND1) LTE B1 0x2 (BAND_PREF_LTE_BAND2) LTE B2 0x4 (BAND_PREF_LTE_BAND3) LTE B3 0x8 (BAND_PREF_LTE_BAND4) LTE B4 0x10 (BAND_PREF_LTE_BAND5) LTE B5 0x80 (BAND_PREF_LTE_BAND8) LTE B8 0x800 (BAND_PREF_LTE_BAND12) LTE B12 0x1000 (BAND_PREF_LTE_BAND13) LTE B13 0x20000 (BAND_PREF_LTE_BAND18) LTE B18 0x40000 (BAND_PREF_LTE_BAND19) LTE B19 0x80000 (BAND_PREF_LTE_BAND20) LTE B20 0x1000000 (BAND_PREF_LTE_BAND25) LTE B25 0x2000000 (BAND_PREF_LTE_BAND26) LTE B26 0x4000000 (BAND_PREF_LTE_BAND27) LTE B27 0x8000000 (BAND_PREF_LTE_BAND28) LTE B28 0x40000000 (BAND_PREF_LTE_BAND31) LTE B31 0x20000000000000000 (BAND_PREF_LTE_BAND66) LTE B66 0x800000000000000000 (BAND_PREF_LTE_BAND72 LTE B72 0x1000000000000000000 (BAND_PREF_LTE_BAND73) LTE B73 0x100000000000000000000 (BAND_PREF_LTE_BAND85) LTE B85
<NB-IoT_bandval> A	hexadecimal value that specifies the NB-IoT frequency band (e.g.: 0x15 = 0x1(LTE B1) + 0x4(LTE B3) + 0x10(LTE B5)). If it is set to 0, it means not to change the NB-IoT frequency band. 0 No change 0x1 (BAND_PREF_LTE_BAND1) LTE B1 0x2 (BAND_PREF_LTE_BAND2) LTE B2 0x4 (BAND_PREF_LTE_BAND3) LTE B3 0x8 (BAND_PREF_LTE_BAND4) LTE B4 0x10 (BAND_PREF_LTE_BAND5) LTE B5 0x80 (BAND_PREF_LTE_BAND8) LTE B8 0x800 (BAND_PREF_LTE_BAND12) LTE B12 0x1000 (BAND_PREF_LTE_BAND13) LTE B13

	0x20000 (BAND_PREF_LTE_BAND18) LTE B18 0x40000 (BAND_PREF_LTE_BAND19) LTE B19 0x80000 (BAND_PREF_LTE_BAND20) LTE B20 0x1000000 (BAND_PREF_LTE_BAND25) LTE B25 0x8000000 (BAND_PREF_LTE_BAND28) LTE B28 0x40000000 (BAND_PREF_LTE_BAND31) LTE B31 0x20000000000000000 (BAND_PREF_LTE_BAND66) LTE B66 0x400000000000000000 (BAND_PREF_LTE_BAND71) LTE B71 0x800000000000000000 (BAND_PREF_LTE_BAND72) LTE B72 0x1000000000000000000 (BAND_PREF_LTE_BAND73) LTE B73 0x100000000000000000000 (BAND_PREF_LTE_BAND85) LTE B85
<effect>	Int type. When to take effect. 0 Take effect after rebooting 1 Take effect immediately

NOTE:

- For the specific bands supported by each model, see corresponding specifications of the modules.

  <GSM_bandval> is valid only on BG95-M3, BG95-M5 and BG600L-M3 modules.

  <NB-IoT_bandval> is invalid on BG95-M1 module.

  LTE B31/B72/B73 is valid on BG95-M4 module only.

- The value setting of <eMTC_bandval> when all eMTC bands are intended to be searched for:

  0x100182000000004F0E189F for BG95-M4

  0x100002000000000F0E189F for BG77, BG600L-M3 and other BG95 series modules

- The value setting of <NB-IoT_bandval> when all NB-IoT bands are intended to be searched for:

  0x10018200000000490E189F for BG95-M4

  0x10004200000000090E189F for BG77, BG600L-M3 and other BG95 series modules

6.2.2. GL100/AL300

This Write Command configures the network search bands to be searched for or queries the current setting.

AT+QCFG="band" Configure network search Band	
Write Command **AT+QCFG="band"[,<bandval>,<lte ba ndval>[,<effect>]**	Response If the optional parameters are omitted, query the current setting: +QCFG: +QCFG: "band",<bandval>,<ltebandval>
	OK
	If any of the optional parameters is specified, configure the frequency bands to be searched for: OK or ERROR
	If there is an error related to ME functionality: +CME ERROR: <err>
Maximum Response Time	300 ms
Characteristics	<effect> determines when the command will take effect. The configurations will be saved automatically.

Parameter	
<bandval>	hexadecimal value that specifies the GSM frequency band. If it is set to 0, it means not to change GSM frequency band.(eg: 0003 = 0001 (EGSM900) + 0002 (DCS1800)) 0 No change 0001 EGSM900

	0002 DCS1800 0004 GSM850 0008 PCS1900 FFFF All of the supported bands above
<ltebandval>	hexadecimal value that specifies the LTE frequency band. If it is set to 0, it means not to change the LTE frequency band.(e.g.: 0x15 = 0x1 (LTE B1) + 0x4 (LTE B3) + 0x10 (LTE B5)) 0 No change 0x1 (CM_BAND_PREF_LTE_EUTRAN_BAND1) LTE B1 0x2 (CM_BAND_PREF_LTE_EUTRAN_BAND2) LTE B2 0x4 (CM_BAND_PREF_LTE_EUTRAN_BAND3) LTE B3 0x8 (CM_BAND_PREF_LTE_EUTRAN_BAND4) LTE B4 0x10 (CM_BAND_PREF_LTE_EUTRAN_BAND5) LTE B5 0x40 (CM_BAND_PREF_LTE_EUTRAN_BAND7) LTE B7 0x80 (CM_BAND_PREF_LTE_EUTRAN_BAND8) LTE B8 0x80000 (CM_BAND_PREF_LTE_EUTRAN_BAND20) LTE B20 0x8000000 (CM_BAND_PREF_LTE_EUTRAN_BAND28 LTE B28 0x200000000 (CM_BAND_PREF_LTE_EUTRAN_BAND34) LTE B34 0x2000000000 (CM_BAND_PREF_LTE_EUTRAN_BAND38) LTE B38 0x4000000000 (CM_BAND_PREF_LTE_EUTRAN_BAND39) LTE B39 0x8000000000 (CM_BAND_PREF_LTE_EUTRAN_BAND40) LTE B40 0x10000000000 (CM_BAND_PREF_LTE_EUTRAN_BAND41) LTE B41 0x20000000000000000(CM_BAND_PREF_LTE_EUTRAN_BAND66) LTE B66 0x7FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF(CM_BAND_PREF_ANY) All of the supported bands above
<effect>	Integer type. When to take effect. 0 Take effect after rebooting

	1 Take effect immediately

NOTE:

- The module can set up to 5 LTE bands at the same time (<ltebandval>when set to "all Band", all the set bands can be unlocked); If it sets more than 5 frequency bands, an error code will be responsed.
- For details of the frequency bands actually supported by the module, please refer to the product specification of each device.

6.2.3. GG100*/AG300*

AT+QBAND Get and Set Mobile Operation Band	
Test Command **AT+QBAND=?**	Response +QBAND: (list of supported <op_band>s) OK
Read Command **AT+QBAND?**	Response +QBAND: <op_band> OK
Write Command **AT+QBAND=<op_band>**	Response OK If there is any error related to ME functionality: +CME ERROR: <err>
Maximum Response Time	30s, determined by network.

7. MQTT Commands

7.1. AT+MQTTTYPE Configure MQTT authentication types

Commands	Reply	Description
Configuration commands **AT+MQTTTYPE=<mode>**	+MQTTTYPE:<mode> OK	Most customers can use general type 0. Some specific platforms (AliCloud) or special encrypted certifications need to be configured with customized types.
Query commands **AT+MQTTTYPE?**	+MQTTTYPE:<mode> OK	

Parameter

<mode>: int type; MQTT authentication types

0: int type;Generic authentication types. Various combinations of account, password, ssl (need to configure relevant parameters)

1: int type; Alicloud authentication type; triple bable(Stored in the client's ID, username, and password)

2: int type; BOX-ID customized types.

Example

Command: AT+MQTTTYPE=0

Reply: +MQTTTYPE:0

OK

Command: AT+MQTTTYPE?

Reply: +MQTTTYPE:0

OK

7.2. AT+MQTTSSLTLS set MQTT SSL

Commands	Reply	Description
Configuration commands **AT+MQTTSSLTLS=<enable>,<level>**	+MQTTSSLTLS:<enable>,<level> OK	If the third-party server has SSL/TLS enabled, the devices need to have SSL enabled as well.Also need to confirm whether the server requires single or two-way authentication.
Query commands **AT+MQTTSSLTLS?**	+MQTTSSLTLS:<enable>,<level> OK	

Parameter

<enable>: int type; enable/disable SSL;

0: int type; enable SSL;

1: int type; disable type;

<level>: int type; Authentication level;

0: int type; no authentication;

1: int type; single authentication;

2: int type; two-way authentication;

Example

Command: AT+MQTTSSLTLS=1,1

Reply: +MQTTSSLTLS:1,1

OK

Command: AT+MQTTSSLTLS?

Reply: +MQTTSSLTLS:1,1

OK

7.3. AT+MQTTCRT Set Certification Connection

Commands	Reply	Description
Configuration commands **AT+MQTTCRT=<type>,<url>**	+MQTTSSLTLS:<type>,<url> OK	
Query command: **AT+MQTTCRT?**	+MQTTSSLTLS:<type>,<url> OK	

Parameter

<type>: int type; certificate types;

1: int type; Client Certificates;

2: int type; certificate key;

3: int typel; CA certificate;

<url>: string type; Certificate link address. (not more than 100 bytes)

Example

Command:
AT+MQTTCRT=3,http://47.122.0.191:8080/file/Firmware_Jt808_AOVX/20220826/

Reply: +MQTTCRT:3,http://47.122.0.191:8080/file/Firmware_Jt808_AOVX/20220826/

OK

Command: AT+MQTTCRT?

Reply:
+MQTTCRT:http://47.122.0.191:8080/file/Firmware_Jt808_AOVX/20221028/certificate.pem,http://47.122.0.191:8080/file/Firmware_Jt808_AOVX/20221028/private.pem,http://47.122.0.191:8080/file/Firmware Jt808 AOVX/20220826/AmazonRootCA1.pem

7.4. AT+MQTTNAME Set MQTT Name

Commands	Reply	Description
Configuration commands **AT+MQTTNAME=<name>**	+MQTTNAME:<name> OK	MQTT name can be configured. According to customer's demand, can be set to all devices a theme(MQTT name), if so,all devices should be configured to the same name; if customers need each mqtt name of devices is different, devices do not need to configure the MQTT name. The default name is the device ID.
Query commands **AT+MQTTNAME?**	+MQTTNAME:<name> OK	

Parameter

<name>: string type; maximum is 12 bytes.

Example

Command: AT+MQTTNAME=AOVX

Reply: +MQTTNAME:AOVX

OK

Command: AT+MQTTNAME?

Reply: +MQTTNAME:AOVX

OK

7.5. AT+MQTTACCOUNT Set MQTT Username and Password

Commands	Reply	Description
Configuration commands **AT+MQTTACCOUNT=<user>,<password>**	+MQTTACCOUNT:<user>,<password> OK	Some authentication types require the use of a user name and password to connect to the server, which can be configured using this command.
Query commands **AT+MQTTACCOUNT?**	+MQTTACCOUNT:<user>,<password> OK	

Parameter

<user>: string type; maximum is 20 bytes.

<psaaword>: string type; maximum is 64 type;

Example

Command: AT+MQTTACCOUNT=AOVX,AOVX

Reply: +MQTTACCOUN:AOVX,AOVX

OK

Command: AT+MQTTACCOUNT?

Reply: +MQTTACCOUN:AOVX,AOVX

OK

Remark:Use **AT+MQTTACCOUNT=0,0** for the customers don't need set user name and password,

7.6. AT+MQTTSUB Set Subscribe and Publish Topic

Commands	Reply	Description
Configuration commands **AT+MQTTSUB=<sub>,<subname>**	+MQTTSUB:<sub>,<subname> OK	
Query commands **AT+MQTTSUB?**	+MQTTSUB:<sub>,<subname> OK	

Parameter

<sub>: int type; Set subscribe and publish topic

1: int type; publish topic;

2: int type; subscribe topic;

<subname>: string type; maximum is 50 bytes;

Example

Command: AT+MQTTSUB=1,dtc/aovx/

Reply: +MQTTSUB:dtc/aovx/AOVX/v1,dtc/recv/AOVX/v1

OK

Command: AT+MQTTSUB?

Reply: +MQTTSUB:dtc/aovx/AOVX/v1,dtc/recv/AOVX/v1

OK

7.7. AT+MQTTQOS Set Quality of Service for MQTT

Commands	Reply	Description
Configuration commands **AT+MQTTQOS=<pub>,<sub>**	+MQTTQOS:<pub>,<sub> OK	
Query commands **AT+MQTTQOS?**	+MQTTQOS:<pub>,<sub> OK	

Parameter

<pub>: int type; Configure the quality of service for MQTT published topic;

0: int type; maximum of 1 time;

1: int type; minimum of 1 time;

2: int type; only 1 time;

<sub>int type; Configure the quality of service for MQTT subscribe topicset

0: int type; maximum of 1 time;

1: int type; minimum of 1 time;

2: int type; only 1 time;

Example

Command: AT+MQTTQOS=1,1

Reply: +MQTTQOS:1,1

OK

Command: AT+MQTTQOS?

Reply: +MQTTQOS:1,1

OK

7.8. AT+MQTTTIME Set Keepalive and Heartbeat Time for MQTT Connection

Commands	Reply	Description
Configuration commands **AT+MQTTTIME=<keepalivetime>,<heartbeattime>**	+MQTTTIME:<keepalivetime>,<heartbeattime> OK	Set keepalive and heartbeat time for MQTT connection; default is 60,30. unit in second;
Query commands **AT+MQTTTIME?**	+MQTTTIME:<keepalivetime>,<heartbeattime> OK	

Parameter

<keepalivetime>: int type; keepalive time for mqtt connection. Unit in second;

<heartbeattime>: int type; heartbbeat time for matt connection; unit in second;

Example

Command: AT+MQTTTIME=60,30

Reply: +MQTTTIME:60,30

OK

Command: AT+MQTTTIME?

Reply: +MQTTTIME:60,30

OK

7.9. AT+MQTTCERUPDATA Clear Certificate Flag

Commands	Reply	Description
Configuration commands **AT+MQTTCERUPDATA=0**	+MQTTCERUPDATA:<flag> OK	Can be configured the certificate renewal flag. The device will update the certificate if the certificate has expired
Query commands **AT+MQTTCERUPDATA?**	+MQTTCERUPDATA:<flag> OK	

Parameter

<flag>: int type; certificate flag;The device will re-download the certificate before the next connection to the server.

0: int type; clear certificate flag;

<subname>: string type; maximum is 50 bytes.

Example

Ccommand: AT+MQTTCERUPDATA=0

Rreply: +MQTTCERUPDATA:0

OK

Command: AT+MQTTCERUPDATA?

Reply: +MQTTCERUPDATA:0

OK