

USR-DR154-E

AT Command



V2.0

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Content

1. Product Overview	- 6 -
2. AT Command Set	- 6 -
3. AT command details	- 10 -
3.1. AT	- 11 -
3.2. AT+Z	- 11 -
3.3. AT+S	- 11 -
3.4. AT+CLEAR	- 11 -
3.5. AT+E	- 12 -
3.6. AT+ENTM	- 12 -
3.7. AT+WKMOD	- 13 -
3.8. AT+CMDPW	- 14 -
3.9. AT+STMSG	- 14 -
3.10. AT+RSTIM	- 15 -
3.11. AT+SDPEN	- 15 -
3.12. AT+NATEN	- 16 -
3.13. AT+UATEN	- 17 -
3.14. AT+CACHEN	- 17 -
3.15. AT+CSQ	- 18 -
3.16. AT+SYSINFO	- 19 -
3.17. AT+VER	- 19 -
3.18. AT+BUILD	- 20 -
3.19. AT+SN	- 20 -
3.20. AT+IMEI	- 21 -
3.21. AT+IMSI	- 21 -
3.22. AT+ICCID	- 21 -
3.23. AT+CIP	- 22 -
3.24. AT+CNUM	- 22 -
3.25. AT+LBS	- 23 -
3.26. AT+LBSN	- 24 -
3.27. AT+CCLK	- 25 -
3.28. AT+SAFEATEN	- 25 -

3.29. AT+SIGNINAT	- 26 -
3.30. AT+UART	- 26 -
3.31. AT+UARTFL	- 28 -
3.32. AT+UARTFT	- 28 -
3.33. AT+APN	- 29 -
3.34. AT+SOCKA	- 30 -
3.35. AT+SOCKB	- 31 -
3.36. AT+SOCKC	- 32 -
3.37. AT+SOCKD	- 32 -
3.38. AT+SOCKAEN	- 33 -
3.39. AT+SOCKBEN	- 34 -
3.40. AT+SOCKCEN	- 35 -
3.41. AT+SOCKDEN	- 35 -
3.42. AT+SOCKALK	- 36 -
3.43. AT+SOCKBLK	- 36 -
3.44. AT+SOCKCLK	- 37 -
3.45. AT+SOCKDLK	- 37 -
3.46. AT+SOCKASL	- 38 -
3.47. AT+KEEPALIVEA	- 38 -
3.48. AT+KEEPALIVEB	- 39 -
3.49. AT+KEEPALIVEC	- 40 -
3.50. AT+KEEPALIVED	- 41 -
3.51. AT+SHORTATM	- 41 -
3.52. AT+SOCKRSNUM	- 42 -
3.53. AT+SOCKRSTIM	- 43 -
3.54. AT+SOCKABK	- 43 -
3.55. AT+SOCKBBK	- 44 -
3.56. AT+SOCKCBK	- 45 -
3.57. AT+SOCKDBK	- 46 -
3.58. AT+SOCKABKEN	- 46 -
3.59. AT+SOCKBBKEN	- 47 -
3.60. AT+SOCKCBKEN	- 48 -

3.61. AT+SOCKDBKEN	- 48 -
3.62. AT+REGEN	- 49 -
3.63. AT+REGTP	- 50 -
3.64. AT+REGDT	- 50 -
3.65. AT+REGSND	- 51 -
3.66. AT+CLOUD	- 52 -
3.67. AT+HEARTEN	- 53 -
3.68. AT+HEARTTP	- 53 -
3.69. AT+HEARTDT	- 54 -
3.70. AT+HEARTTM	- 55 -
3.71. AT+HEARTSORT	- 55 -
3.72. AT+HEART	- 56 -
3.73. AT+HTPTP	- 58 -
3.74. AT+HTPURL	- 58 -
3.75. AT+HTPHD	- 59 -
3.76. AT+HTPSV	- 60 -
3.77. AT+HTPPK	- 60 -
3.78. AT+HTPTIM	- 61 -
3.79. AT+DSTNUM	- 62 -
3.80. AT+SMSFLT	- 62 -
3.81. AT+MQTTSVR	- 63 -
3.82. AT+MQTTUSER	- 64 -
3.83. AT+MQTTPSW	- 64 -
3.84. AT+MQTTCID	- 65 -
3.85. AT+MQTTVER	- 66 -
3.86. AT+MQTTMOD	- 66 -
3.87. AT+HEARTMT	- 67 -
3.88. AT+MQTTCFG	- 68 -
3.89. AT+MQTTWILL	- 68 -
3.90. AT+MQTTSUBTP	- 69 -
3.91. AT+MQTTPUBTP	- 70 -
3.92. AT+SSLEN	- 72 -

3.93. AT+SSLCRT	- 72 -
3.94. AT+SSLVER	- 73 -
3.95. AT+SSLAUTH	- 74 -
3.96. AT+ALIREGION	- 74 -
3.97. AT+ALIPRODKEY	- 75 -
3.98. AT+ALIDEVNAME	- 76 -
3.99. AT+ALIDEVSEC	- 76 -
3.100. AT+ALIDEVID	- 77 -
3.101. AT+MQTTSTA	- 77 -
3.102. AT+SSLCFG	- 78 -
3.103. AT+NTPSVR	- 79 -
3.104. AT+NTPEN	- 79 -
3.105. AT+NTPTM	- 80 -
3.106. AT+SIMSWITCH	- 81 -
3.107. AT+MODBUSEN	- 82 -
3.108. AT+EDGEEN	- 83 -
3.109. AT+EDGERPTMOD	- 83 -
3.110. AT+COLLECTTIME	- 84 -
3.111. AT+POLLTIME	- 85 -
3.112. AT+POLLTIMEOUT	- 85 -
3.113. AT+INSERTDB	- 86 -
3.114. AT+DELETEDB	- 87 -
3.115. AT+SELECTDB	- 87 -
3.116. AT+SYSPPOINT	- 88 -
4. Contact Us	- 89 -
5. Disclaimer	- 90 -
6. Update history	- 90 -

1. Product Overview

The DM Platform is a monitoring and operation platform powered by PUSR Cloud for PUSR gateways and routers. It provides online statistics, basic information viewing, firmware upgrades, and cross-region networking capabilities for routers. It supports remote access to PUSR routers and gateways and the device connected to the routers and gateways on Lay3. This service can replace complex VPN solutions, facilitating remote access to cameras, remote configuration of PLCs and industrial computers, remote program downloads for PLCs, file transfers to industrial computers or PLCs, and remote terminal upgrades. It helps customers manage routers and terminal devices in a unified and efficient manner.

2. AT Command Set

No.	instruct	functional description
universal command		
1	AT	test
2	AT+Z	Restart the module
3	AT+S	Save the configuration and restart
4	AT+CLEAR	Restore the factory and restart
5	AT+E	Query/Enable echo setting
6	AT+ENTM	Exit configuration mode
7	AT+WKMOD	Query/set working mode
8	AT+CMDPW	Query/set command password
9	AT+STMSG	Query/set startup information
10	AT+RSTIM	Query/set device no data restart time
11	AT+SDPEN	Query/set socket distribution protocol enabled
12	AT+NATEN	Query/Setting network AT enablement
13	AT+UATEN	Query/sets serial port AT enable
14	AT+CACHEN	Query/set serial port data cache enable
15	AT+CSQ	Query signal strength
16	AT+SYSINFO	Query connection mode
Information query instructions		
1	AT+VER	Query the firmware version number
2	AT+BUID	Query firmware compilation time

3	AT+SN	Query SN code
4	AT+IMEI	Query the IMEI number
5	AT+IMSI	query IMSI
6	AT+ICCID	Query the ICCD code
7	AT+CIP	Query local IP
8	AT+CNUM	Query the SIM card phone number
9	AT+LBS	Query the base station information of the cell
10	AT+LBSN	Query the neighboring cell base station information
11	AT+CCLK	query time
Safety mechanisms		
1	AT+SAFEATEN	Query/set security mechanism enabled
2	AT+SIGINAT	Login/Setting login password
Serial port parameter instructions		
1	AT+UART	Query/sets serial port parameters
2	AT+UARTFL	Query/set serial port packing length
3	AT+UARTFT	Query/set serial port packing time
Connect parameters command		
1	AT+APN	Query/set APN information
2	AT+SOCKA	Query/sets the socket A parameter
3	AT+SOCKB	Query/set socket B parameter
4	AT+SOCKC	Query/set socket C parameters
5	AT+SOCKD	Query/set the socket D parameter
6	AT+SOCKAEN	Query/set socket A enabled
7	AT+SOCKBEN	Query/set socket B enabled
8	AT+SOCKCEN	Query/set socket C enabled
9	AT+SOCKDEN	Query/set socket D enabled
10	AT+SOCKALK	Query socket A connection status
11	AT+SOCKBLK	Query the status of socket B connection
12	AT+SOCKCLK	Query socket C connection status
13	AT+SOCKDLK	Query the socket D connection status

14	AT+SOCKASL	Query/set socket A short connection enabled
15	AT+KEEPAIVEA	Query/set the keepalive parameter of socket A
16	AT+KEEPAIVEB	Query/set the keepalive parameter of socket B
17	AT+KEEPAIVEC	Query/set the keepalive parameter of socket C
18	AT+KEEPAIVED	Query/set the keepalive parameter of socket D
19	AT+SHORTATM	Query/set socket A short connection timeout
20	AT+SOCKRSNUM	Query/set the maximum number of socket reconnections
21	AT+SOCKRSTIM	Query/set socket reconnection interval
Socket back-up		
1	AT+SOCKABK	Query/set socket A backup parameter
2	AT+SOCKBBK	Query/set socket B backup parameters
3	AT+SOCKCBK	Query/set socket C backup parameters
4	AT+SOCKDBK	Query/sets socket D backup parameters
5	AT+SOCKABKEN	Query/set socket A Backup enabled
6	AT+SOCKBBKEN	Query/set socket B backup enabled
7	AT+SOCKCBKEN	Query/set socket C backup enabled
8	AT+SOCKDBKEN	Query/set socket D backup enabled
Registration package instructions		
1	AT+REGEN	Query/Setting up the registration package enables
2	AT+REGTP	Query/sets the content type of the registration package
3	AT+REGDT	Query/set custom registration information
4	AT+REGSND	Query/set the sending mode of registration packets
5	AT+CLOUD	Query/set the owner cloud device ID and password
Heartbeat packet command		
1	AT+HEARTEN	Query/Enable heartbeat packets
2	AT+HEARTTP	Query/set the sending mode of heartbeat packets
3	AT+HEARTDT	Query/set heartbeat packet data
4	AT+HEARTTM	Query/set the heartbeat packet sending interval
5	AT+HEARTSORT	Query/set heartbeat packet data type
6	AT+HEART	Query/set heartbeat packet parameters

HTTPD instruct		
1	AT+HTPTP	Query/set HTTP request mode
2	AT+HTPURL	Query/Setting URL
3	AT+HTPHD	Query/set HTTP HEAD information
4	AT+HTPSV	Query/sets the target server address and port
5	AT+HTPPK	Query/set whether to enable the filter header
6	AT+HTPTIM	Query/set timeout
SMS messaging		
1	AT+DSTNUM	Query/set the target phone number of SMS transmission
2	AT+SMSFLT	Query/set whether to enable non-target phone number filtering
MQTT pattern		
1	AT+MQTTSVR	Query/set the MQTT server address and port
2	AT+MQTTUSER	Query/set the MQTT username
3	AT+MQTTPSW	Query/set the MQTT password
4	AT+MQTTCID	Query/set MQTT Client ID
5	AT+MQTTVER	Query/set MQTT version
6	AT+MQTTMOD	Query/set MQTT serial port transmission mode
7	AT+HEARTMT	Query/set the MQTT heartbeat sending channel
8	AT+MQTTCFG	Query/set the MQTT heartbeat packet time and clear the session flag enable status
9	AT+MQTTWILL	Query/set MQTT will messages
10	AT+MQTTSUBTP	Query/set MQTT subscription topic
11	AT+MQTTPUBTP	Query/set MQTT publish topic
12	AT+SSLEN	Query/set MQTT SSL encryption enabled
13	AT+SSLCRT	Set up the MQTT SSL certificate and key
14	AT+SSLVER	Query/set the version of the SSL encryption protocol for MQTT
15	AT+SSLAUTH	Query/set the SSL authentication mode of MQTT
16	AT+ALIREGION	Query/set the regional information of Aliyun

17	AT+ALIPRODKEY	Query/set the product secret key of Aliyun
18	AT+ALIDEVNAME	Query/set Aliyun device name
19	AT+ALIDEVSEC	Query/set Aliyun device secret key
20	AT+ALIDEVID	Query/set Aliyun device ID
21	AT+MQTTSTA	Query the MQTT connection status
22	AT+SSLCFG	Query/set SNI verification enabled status
SNTP instruct		
1	AT+NTPSVR	Query/set the NTP server address
2	AT+NTPEN	Query/set NTP time synchronization function enabled
3	AT+NTPTM	Query/set the NTP time synchronization period
Dual SIM mode switch command		
1	AT+SIMSWITCH	Query/set SIM card usage mode
MODBUS gateway function		
1	AT+MODBUSEN	Enable modbus RTU/TCP protocol conversion by setting/Query
2	AT+EDGEEN	Set/Query modbus edge acquisition enabled status
3	AT+EDGERPTMOD	Set/Query edge acquisition report mode
4	AT+COLLECTTIME	Query/sets the Modbus polling period polling interval
5	AT+POLLTIME	Query/set the polling interval of Modbus polling points
6	AT+POLLTIMEOUT	Query/sets the timeout waiting time for Modbus polling collection
7	AT+INSERTDB	Set the Modbus polling collection point information
8	AT+DELETEDB	Delete the created data collection points
9	AT+SELECTDB	Query the created data points
10	AT+SYSPPOINT	Set/Query the configuration of the JSON reporting system point

3. AT command details

3.1. AT

	explain	Example and notes
function	test	
Directive	/	
query	AT{CR}{LF} {CR}{LF}OK{CR}{LF}	AT OK
set up	/	
parameter	/	

3.2. AT+Z

	explain	Example and notes
function	Restart the module	
Directive	/	
query	AT+Z{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+Z OK
set up	/	
parameter	/	

3.3. AT+S

	explain	Example and notes
function	Save the configuration and restart	
Directive	/	
query	AT+S{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+S OK
set up	/	
parameter	/	

3.4. AT+CLEAR

	explain	Example and notes
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function	Restore the factory and restart	
Directive	/	
query	AT+CLEAR{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CLEAR OK
set up	/	
parameter	/	

3.5. AT+E

	explain	Example and notes
function	Query/Enable echo setting	
Directive	AT+E=?{CR}{LF} {CR}{LF}+E:<ON,OFF>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+E=? +E:<ON,OFF> OK
query	AT+E{CR}{LF} or AT+E?{CR}{LF} {CR}{LF}+E:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+E? +E:ON OK
set up	AT+E=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+E=ON OK
parameter		
sta	Echo status ON: open OFF: close	by default ON

3.6. AT+ENTM

	explain	Example and notes
function	Exit configuration mode	
Directive	/	

query	AT+ENTM{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ENTM OK
set up	/	
parameter	/	

3.7. AT+WKMOD

	explain	Example and notes
function	Query/set working mode	
Directive	AT+WKMOD=?{CR}{LF} {CR}{LF}+WKMOD:<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+WKMOD=? +WKMOD:<CMD,NET,HTTPD,S MS,<MQTT,<NOR,ALI>>> OK
query	AT+WKMOD{CR} or AT+WKMOD?{CR} {CR}{LF}+WKMOD:<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+WKMOD? +WKMOD:NET OK
set up	AT+WKMOD=<mode>{CR} {CR}{LF}OK{CR}{LF}	AT+WKMOD=MQTT,NOR OK
parameter		
mode	work pattern CMD: Command mode NET: Network transmission mode HTTPD: HTTPD pattern SMS: SMS transmission mode MQTT: MQTT pattern MQTT connection type (skip this parameter if not MQTT):	by default NET

	NOR: General MQTT ALI: Aliyun	
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3.8. AT+CMDPW

	explain	Example and notes
function	Query/set command password	
Directive	AT+CMDPW=?{CR}{LF} {CR}{LF}+CMDPW:<password>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CMDPW=? +CMDPW:<1~10 bytes> OK
query	AT+CMDPW{CR} or AT+CMDPW?{CR} {CR}{LF}+CMDPW:<password>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CMDPW? +CMDPW:usr.cn# OK
set up	AT+CMDPW=<password>{CR} {CR}{LF}OK{CR}{LF}	AT+CMDPW=usr.cn# OK
parameter		
password	Command password up to 10 bytes	By default it is usr.cn#

3.9. AT+STMSG

	explain	Example and notes
function	Query/set startup information	
Directive	AT+STMSG=?{CR}{LF} {CR}{LF}+STMSG:<welcome message>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+STMSG=? +STMSG:<1~20 bytes> OK
query	AT+STMSG{CR} or AT+STMSG?{CR} {CR}{LF}+STMSG:<message>{CR}	AT+STMSG? +STMSG:USR-G780s

	{LF}{CR}{LF}OK{CR}{LF}	OK
set up	AT+STMSG=<message>{CR} {CR}{LF}OK{CR}{LF}	AT+STMSG=USR-G780s OK
parameter		
message	Power on information up to 20 bytes	By default, it is USR-G780s

3.10. AT+RSTIM

	explain	Example and notes
function	Query/set restart time without data	
Directive	AT+RSTIM=?{CR}{LF} {CR}{LF}+RSTIM:<0,60~65535(s)>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+RSTIM=? +RSTIM:<0,300~65535(s)> OK
query	AT+RSTIM{CR} or AT+RSTIM?{CR} {CR}{LF}+RSTIM:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+RSTIM? +RSTIM:1800 OK
set up	AT+RSTIM=<num>{CR} {CR}{LF}OK{CR}{LF}	AT+RSTIM=1800 OK
parameter		
num	Restart time, range: <0,300~65535 (s)	Default is 1800

Note: This function is disabled when the parameter is set to 0.

3.11. AT+SDPEN

	explain	Example and notes
function	Query/set socket enable	

Directive	AT+SDPEN=?{CR}{LF} {CR}{LF}+SDPEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SDPEN=? +SDPEN:<ON,OFF> OK
query	AT+SDPEN{CR}{LF} or AT+SDPEN?{CR}{LF} {CR}{LF}+SDPEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SDPEN? +SDPEN:OFF OK
set up	AT+SDPEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SDPEN=ON OK
parameter		
sta	Socket enabled status: ON: open OFF: close	by default OFF

3.12. AT+NATEN

	explain	Example and notes
function	Query/set network/SMS AT enabled	
Directive	AT+NATEN=?{CR}{LF} {CR}{LF}+NATEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NATEN=? +NATEN:<ON,OFF> OK
query	AT+NATEN{CR}{LF} or AT+NATEN?{CR}{LF} {CR}{LF}+NATEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NATEN? +NATEN:OFF OK
set up	AT+NATEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NATEN=ON OK

parameter		
sta	Network/SMS AT enabled status: ON: open OFF: close	by default ON

3.13. AT+UATEN

	explain	Example and notes
function	Query/set serial port AT enable	
Directive	AT+UATEN=?{CR}{LF} {CR}{LF}+UATEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UATEN=? +UATEN:<ON,OFF> OK
query	AT+UATEN{CR}{LF} or AT+UATEN?{CR}{LF} {CR}{LF}+UATEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UATEN? +UATEN:OFF OK
set up	AT+UATEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UATEN=ON OK
parameter		
sta	Serial port AT enabled status: ON: open OFF: close	by default ON

3.14. AT+CACHEN

	explain	Example and notes
function	Query/set serial port data cache enable	
Directive	AT+CACHEN=?{CR}{LF} {CR}{LF}+CACHEN:<ON,OFF>{CR}{LF}	AT+CACHEN=? +CACHEN:<ON,OFF>

	{CR}{LF}OK{CR}{LF}	OK
query	AT+CACHEN{CR}{LF} or AT+CACHEN?{CR}{LF} {CR}{LF}+CACHEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CACHEN? +CACHEN:OFF OK
set up	AT+CACHEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CACHEN=ON OK
parameter		
sta	Cache enabled status: ON: open OFF: close	by default ON

3.15. AT+CSQ

	explain	Example and notes
function	Query signal strength	
Directive	/	
query	AT+CSQ{CR}{LF} {CR}{LF}+CSQ:<rss>,<ber>{CR} {LF}{CR}{LF}OK{CR}{LF}	AT+CSQ +CSQ: 27,99 OK
set up	/	
parameter		
rss	signal quality	
ber	bit error rate	

The conversion formula between RSSI value (unit dBm, also called ASU value) and CSQ value: $RSSI = CSQ * 2 - 113$

3.16. AT+SYSINFO

	explain	Example and notes
function	Query connection mode	
Directive	/	
query	AT+SYSINFO{CR}{LF} or AT+SYSINFO?{CR}{LF} {CR}{LF}+SYSINFO:{CR}{LF}<n>,<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SYSINFO? +SYSINFO:2,LTE . OK
set up	/	
parameter		
n	Current network number: 0: No service 2: Has a service (successfully activated PDP context)	
mode	The current network name corresponds to the current network number: No Network (no network) GSM/GPRS (2G network) LTE (4G network)	

3.17. AT+VER

	explain	Example and notes
function	Query the firmware version number	
Directive	/	
query	AT+VER{CR}{LF} or AT+VER?{CR}{LF} {CR}{LF}+VER:<version>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+VER? +VER:V1.3.23.000000.0000

		OK
set up	/	
parameter		
version	firmware version number	

3.18. AT+BUILD

	explain	Example and notes
function	Query firmware compilation time	
Directive	/	
query	AT+BUILD{CR}{LF} or AT+BUILD?{CR}{LF} {CR}{LF}+BUILD:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+BUILD? +BUILD:2022-11-11 16:36:18 OK
set up	/	
parameter		
time	Firmware compilation time	

3.19. AT+SN

	explain	Example and notes
function	Query the SN code of the module	
Directive	/	
query	AT+SN{CR}{LF} or AT+SN?{CR}{LF} {CR}{LF}+SN:<code>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SN? +SN: 00402420011300024522 OK
set up	/	
parameter		
code	SN a sign or object indicating number	

3.20. AT+IMEI

	explain	Example and notes
function	Query the module's IMEI	
Directive	/	
query	AT+IMEI{CR}{LF} or AT+IMEI?{CR}{LF} {CR}{LF}+IMEI:<code>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+IMEI? +IMEI:864333040712457 OK
set up	/	
parameter		
code	IMEI a sign or object indicating number	

3.21. AT+IMSI

	explain	Example and notes
function	query IMSI	
Directive	/	/
query	AT+IMSI{CR} or AT+IMSI?{CR} {CR}{LF}+IMSI:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+IMSI? +IMSI:460113423437716 OK
set up	/	/
parameter		
num	IMSI number	/

3.22. AT+ICCID

	explain	Example and notes
function	Query the ICCD code of the module	
Directive	/	
query	AT+ICCID{CR}{LF} or AT+ICCID?{CR}{LF}	AT+ICCID?

	{CR}{LF}+ICCID:<code>{CR}{LF} {CR}{LF}OK{CR}{LF}	+ICCID:8986003615195A5713 14 OK
set up	/	
parameter		
code	ICCID a sign or object indicating number	

3.23. AT+CIP

	explain	Example and notes
function	Query the current connected local IP address	
Directive	/	
query	AT+CIP{CR}{LF} or AT+CIP?{CR}{LF} {CR}{LF}+CIP: <IP>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CIP? +CIP:10.1.167.22 OK
set up	/	
parameter		
IP	The local IP address corresponding to the current socket	

3.24. AT+CNUM

	explain	Example and notes
function	Query the phone number of this machine	
Directive	/	
query	AT+CNUM{CR}{LF} or AT+CNUM?{CR}{LF} {CR}{LF}+CNUM:<number>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CNUM? +CNUM: "", "15112341234", 129

		OK
set up	/	
parameter		
number	This machine's phone number	

Note: Not all cards can be checked for phone numbers. The card company must write the number into the SIM card when issuing the card, otherwise the phone number cannot be checked.

3.25. AT+LBS

	explain	Example and notes
function	Query the base station information/latitude longitude, time information/Geographic information	
Directive	/	
Query the base station information of the cell	AT+LBS{CR}{LF} or AT+LBS?{CR}{LF} {CR}{LF}+LBS: LAC=<LAC/TAC>,CID=<CID>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+LBS? +LBS: LAC = 333e, CID = 3357906 OK
Query latitude, longitude, time information	AT+LBS=1{CR}{LF} {CR}{LF}+LBS: LNG=<LNG>,LAT=<LAT>,TIME=<TIME>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+LBS=1 +LBS: LNG = 114.43350220, LAT = 30.49159431, TIME = 2020-12-11 15:45:36 OK
Query latitude longitude, time and geographical description information	AT+LBS=2{CR}{LF} {CR}{LF}+LBS: LNG=<LNG>,LAT=<LAT>,TIME=<TIME>,ADDIN FO=<ADDINFO>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+LBS=2 +LBS: LNG = 114.43350220, LAT = 30.49159431, TIME = 2020-12-11 15:45:39, ADDINFO: Wuhan City Gaoxin Avenue 426

		OK
set up	/	
parameter		
LAC/TAC	The community number is 2G as LAC and Cat-1 as TAC	
CID	Base station number	
LNG	longitude	
LAT	latitude	
TIME	time	
ADDINFO	Geographic information (UTF-8 encoding)	

Note: The interface between AT+LBS=1 and AT+LBS=2 is a free interface provided by our company. If users call it frequently, the service may be unstable. It is recommended that users use paid third-party API interface for base station longitude and latitude conversion.

When the interface access fails, LNG/LAT/TIM/ADDINFO returns a value of 0.

3.26. AT+LBSN

	explain	Example and notes
function	Query the neighboring cell base station information	
Directive	/	
query	AT+LBSN{CR}{LF} or AT+LBSN?{CR}{LF} {CR}{LF}+LBSN:{CR}{LF} TAC1=<TAC/LAC>,CellID1=<CID>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+LBSN? +LBSN: TAC1 = 5315, CellID1 = c744d07 OK
set up	/	
parameter		

TAC/LAC	The community number is 2G as LAC and Cat-1 as TAC	
CID	Base station number	

3.27. AT+CCLK

	explain	Example and notes
function	Query/set time	
Directive	/	
query	AT+CCLK{CR}{LF} or AT+CCLK?{CR}{LF} {CR}{LF}+CCLK: " date,time" {CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CCLK? +CCLK: "20/06/19,20:05:19+32" OK
set up	AT+CCLK=<date>,<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CCLK=20/12/01,10:47:4 6+32 OK
parameter		
date	date	
time	time	

3.28. AT+SAFEATEN

	explain	Example and notes
function	Query/set security mechanism enabled	
Directive	AT+SAFEATEN=?{CR}{LF} {CR}{LF}+SAFEATEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SAFEATEN=? +SAFEATEN:<ON,OFF> OK
query	AT+SAFEATEN{CR}{LF} or	AT+SAFEATEN?

	AT+SAFEATEN?{CR}{LF} {CR}{LF}+SAFEATEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	+SAFEATEN:OFF OK
set up	AT+SAFEATEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SAFEATEN=ON OK
parameter		
sta	Security mechanism enabled status: ON: open OFF: close	by default OFF

3.29. AT+SIGNINAT

	explain	Example and notes
function	Login/Setting login password	
Directive	Login before the login command After login, you can change the login password Only letters, numbers and underscores are allowed	
query	/	
Login/Settings	AT+SIGNINAT=<password>{CR} {CR}{LF}OK{CR}{LF}	AT+SIGNINAT=usr_cn OK
parameter		
password	Login password up to 10 bytes	Default isusr_cn

3.30. AT+UART

	explain	Example and notes
function	Query/set serial port parameters	

Directive	AT+UART=?{CR}{LF} {CR}{LF}+UART: <baud>,<data>,<stop>,<parity>,<flow>{CR} {LF}{CR}{LF}OK{CR}{LF}	AT+UART=? +UART:<1200~230400>,<8>,<1 ,2>,<NONE,ODD,EVEN>,<NON E> OK
query	AT+UART{CR}{LF} or AT+UART?{CR}{LF} {CR}{LF}+UART:<baud>,<data>,<stop>,<pari ty>,<flow>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+UART? +UART:115200,8,1,NONE,NON E OK
set up	AT+UART=<baud>,<data>,<stop>,<parity>, <flow>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UART=115200,8,1,NONE,N ONE OK
parameter		
baud	Baud rate: 1200~230400	Default is 115200
data	Data bits 8: 8-bit data	By default, it is 8
stop	Stoppage 1: 1 bit stop position 2: 2-bit stop bit	By default, 1
parity	Verification method NONE: No verification ODD: odd EVEN: even parity check	by default NONE
flow	Flow control NONE: No flow control RS485: RS485 flow control (RS485 enabled)	by default NONE

3.31. AT+UARTFL

	explain	Example and notes
function	Query/sets serial port packing length	
Directive	AT+UARTFL=?{CR}{LF} {CR}{LF}+UARTFL:<5~4096>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+UARTFL=? +UARTFL:<5~4096> OK
query	AT+UARTFL{CR} or AT+UARTFL?{CR} {CR}{LF}+UARTFL:<len>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+UARTFL? +UARTFL:1024 OK
set up	AT+UARTFL=<len>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UARTFL=1024 OK
parameter		
len	Packaging length, range 5 to 4096 bytes, default 1024 bytes	

3.32. AT+UARTFT

	explain	Example and notes
function	Query/set serial port packing time	
Directive	AT+UARTFT=?{CR}{LF} {CR}{LF}+UARTFT:<50~500(ms)>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UARTFT=? +UARTFT:<10~500(ms)> OK
query	AT+UARTFT{CR} or AT+UARTFT?{CR} {CR}{LF}+UARTFT:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UARTFT? +UARTFT:50 OK

set up	AT+UARTFT=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+UARTFT=50 OK
parameter		
time	Packaging time, range 10~500 (ms), default 50ms	

3.33. AT+APN

	explain	Example and notes
function	Query/set APN information	
Directive	AT+APN=?{CR}{LF} {CR}{LF}+APN:<apn>,[<username>],[<password>],[<auth>]] {CR}{LF} {CR}{LF}OK{CR}{LF}	AT+APN=? +APN:<APN>,[<USERNAME>],[<PASSWORD>],[<0,1,2>]] OK
query	AT+APN{CR}{LF} or AT+APN?{CR}{LF} {CR}{LF}+APN:<apn>,[<username>],[<password>],[<auth>]] {CR}{LF} {CR}{LF}OK{CR}{LF}	AT+APN? +APN:CMNET,,,0 OK
set up	AT+APN=<apn>,[<username>],[<password>],[<auth>]] {CR}{LF} {CR}{LF}OK{CR}{LF}	AT+APN=CMNET,,,0 OK
parameter		
apn	APN, range: 0 to 50 bytes	give tacit consent to CMNET
username	User name, which can be empty, ranges from 0 to 50 bytes	Default is empty
password	The password can be empty and is up to 50 bytes	Default is empty
auth	Authentication mode: 0,1,2	Default is 0

Note: 1. When using a non-APN SIM card, there is no need to set the APN information. This parameter must be set only when using an APN SIM card. Changes to this parameter do not affect the use of non-

APN SIM cards.

2. In most cases, there is no need to set the CID parameter when using an APN card (the APN information of CID1 is set by default); in a few special cases, if the APN card cannot be activated properly, you need to try setting the APN information of CID 0.

example :

To insert an APN card, you only need to set: AT+APN=APN,username,password,auth

If the network cannot be connected normally after the restart, try:

AT+APN=APN,username,password,auth,0

At this time, save and restart to activate the network normally.

3.34. AT+SOCKA

	explain	Example and notes
function	Query/set socket A parameter	
Directive	AT+SOCKA=?{CR}{LF} {CR}{LF}+SOCKA:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKA=? +SOCKA:<TCP,UDP>,<1~256bytes>,<1~65535> OK
query	AT+SOCKA{CR} or AT+SOCKA? {CR} {CR}{LF}+SOCKA:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKA? +SOCKA:TCP,socket.usr.cn,2317 OK
set up	AT+SOCKA=<protocol>,<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKA=TCP,socket.usr.cn,2317 OK
parameter		
protocol	communicating protocol TCP: TCP protocol UDP: UDP protocol	give tacit consent to TCP

address	Target address, supports domain names, range: 1 to 256 bytes	By default it is socket.usr.cn
port	Target port, range 1 to 65535	Default 2317

3.35. AT+SOCKB

	explain	Example and notes
function	Query/set socket B parameter	
Directive	AT+SOCKB=?{CR}{LF} {CR}{LF}+SOCKB:<protocol>,<address>,<port>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+SOCKB=? +SOCKB:<TCP,UDP>,<1~256 bytes>,<1~65535> OK
query	AT+SOCKB{CR} or AT+SOCKB?{CR} {CR}{LF}+SOCKB:<protocol>,<address>,<port>{CR}{LF}{CR}{LF}OK{CR}{LF}	AT+SOCKB? +SOCKB:TCP,socket.usr.cn,2317 OK
set up	AT+SOCKB=<protocol>,<address>,<port>{CR}{CR}{LF}OK{CR}{LF}	AT+SOCKB=TCP,socket.usr.cn,2317 OK
parameter		
protocol	communicating protocol TCP: TCP protocol UDP: UDP protocol	give tacit consent to TCP
address	Target address, supports domain names, range: 1 to 256 bytes	By default it is socket.usr.cn
port	Target port, range 1 to 65535	Default 2317

3.36. AT+SOCKC

	explain	Example and notes
function	Query/Setting socket C parameters	
Directive	AT+SOCKC=?{CR}{LF} {CR}{LF}+SOCKC:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKC=? +SOCKC:<TCP,UDP>,<1~256 bytes>,<1~65535> OK
query	AT+SOCKC{CR} or AT+SOCKC?{CR} {CR}{LF}+SOCKC:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKC? +SOCKC:TCP,socket.usr.cn,2317 OK
set up	AT+SOCKC=<protocol>,<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKC=TCP,socket.usr.cn,2317 OK
parameter		
protocol	communicating protocol TCP: TCP protocol UDP: UDP protocol	give tacit consent to TCP
address	Target address, supports domain names, range: 1 to 256 bytes	By default it is socket.usr.cn
port	Target port, range 1 to 65535	Default 2317

3.37. AT+SOCKD

	explain	Example and notes
function	Query/sets the socket D parameter	
Directive	AT+SOCKD=?{CR}{LF}	AT+SOCKD=?

	{CR}{LF}+SOCKD:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	+SOCKD:<TCP,UDP>,<1~256 bytes>,<1~65535> OK
query	AT+SOCKD{CR} or AT+SOCKD?{CR} {CR}{LF}+SOCKD:<protocol>,<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKD? +SOCKD:TCP,socket.usr.cn,2317 OK
set up	AT+SOCKD=<protocol>,<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKD=TCP,socket.usr.cn,2317 OK
parameter		
protocol	communicating protocol TCP: TCP protocol UDP: UDP protocol	give tacit consent to TCP
address	Target address, supports domain names, range: 1 to 256 bytes	By default it is socket.usr.cn
port	Target port, range 1 to 65535	Default 2317

3.38. AT+SOCKAEN

	explain	Example and notes
function	Query/set socket A enabled	
Directive	AT+SOCKAEN=?{CR}{LF} {CR}{LF}+SOCKAEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKAEN=? +SOCKAEN:<ON,OFF> OK
query	AT+SOCKAEN{CR} or AT+SOCKAEN?{CR} {CR}{LF}+SOCKAEN:<sta>{CR}{LF}	AT+SOCKAEN? +SOCKAEN:ON

	{CR}{LF}OK{CR}{LF}	OK
set up	AT+SOCKAEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKAEN=ON OK
parameter		
sta	SocketA enabled status ON: enable OFF: prohibit	by default ON

3.39. AT+SOCKBEN

	explain	Example and notes
function	Query/set socket B enabled	
Directive	AT+SOCKBEN=?{CR}{LF} {CR}{LF}+SOCKBEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBEN=? +SOCKBEN:<ON,OFF> OK
query	AT+SOCKBEN{CR} or AT+SOCKBEN?{CR} {CR}{LF}+SOCKBEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBEN? +SOCKBEN:OFF OK
set up	AT+SOCKBEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBEN=OFF OK
parameter		
sta	Socket B enabled status ON: enable OFF: prohibit	by default OFF

3.40. AT+SOCKCEN

	explain	Example and notes
function	Query/Setting socket C enabled	
Directive	AT+SOCKCEN=?{CR}{LF} {CR}{LF}+SOCKCEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCEN=? +SOCKCEN:<ON,OFF> OK
query	AT+SOCKCEN{CR} or AT+SOCKCEN?{CR} {CR}{LF}+SOCKCEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCEN? +SOCKCEN:ON OK
set up	AT+SOCKCEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCEN=ON OK
parameter		
sta	Socket C enabled status ON: enable OFF: prohibit	by default OFF

3.41. AT+SOCKDEN

	explain	Example and notes
function	Query/set socket D enabled	
Directive	AT+SOCKDEN=?{CR}{LF} {CR}{LF}+SOCKDEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDEN=? +SOCKDEN:<ON,OFF> OK
query	AT+SOCKDEN{CR} or AT+SOCKDEN?{CR} {CR}{LF}+SOCKDEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDEN? +SOCKDEN:OFF OK

set up	AT+SOCKDEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDEN=OFF OK
parameter		
sta	Socket D enabled status ON: enable OFF: prohibit	by default OFF

3.42. AT+SOCKALK

	explain	Example and notes
function	Query socket A connection status	
Directive	/	
query	AT+SOCKALK{CR} or AT+SOCKALK?{CR} {CR}{LF}+SOCKALK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKALK? +SOCKALK:Connected OK
set up	/	
parameter		
sta	Socket A connection status Connected: Connected disconnected: not connected	

3.43. AT+SOCKBLK

	explain	Example and notes
function	Query the status of socket B connection	
Directive	/	
query	AT+SOCKBLK{CR} or AT+SOCKBLK?{CR} {CR}{LF}+SOCKBLK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBLK? +SOCKBLK:Connected

		OK
set up	/	
parameter		
sta	Socket B connection status Connected: Connected disconnected: not connected	

3.44. AT+SOCKCLK

	explain	Example and notes
function	Query socket C connection status	
Directive	/	
query	AT+SOCKCLK{CR} or AT+SOCKCLK?{CR} {CR}{LF}+SOCKCLK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCLK? +SOCKCLK:Connected OK
set up	/	
parameter		
sta	Socket C connection status Connected: Connected disconnected: not connected	

3.45. AT+SOCKDLK

	explain	Example and notes
function	Query the socket D connection status	
Directive	/	
query	AT+SOCKDLK{CR} or AT+SOCKDLK?{CR} {CR}{LF}+SOCKDLK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDLK? +SOCKDLK:Connected OK

set up	/	
parameter		
sta	Socket D connection status Connected: Connected disconnected: not connected	

3.46. AT+SOCKASL

	explain	Example and notes
function	Query/set socket A short connection enabled	
Directive	AT+SOCKASL=?{CR}{LF} {CR}{LF}+SOCKASL:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKASL=? +SOCKASL:<LONG,SHORT> OK
query	AT+SOCKASL{CR} or AT+SOCKASL?{CR} {CR}{LF}+SOCKASL:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKASL? +SOCKASL:LONG OK
set up	AT+SOCKASL=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKASL=LONG OK
parameter		
sta	attended mode SHORT: Short connection LONG: long connection	by default LONG

3.47. AT+KEEPAIVEA

	explain	Example and notes
function	Query/set the keepalive parameter of	

	socket A	
Directive	AT+KEEPAIVEA=?{CR}{LF} {CR}{LF}+KEEPAIVEA:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEA=? +KEEPAIVEA:<0,1>,<1~65535>,<1~100>,<1~10> OK
query	AT+KEEPAIVEa{CR}{LF} or AT+KEEPAIVEa?{CR}{LF} {CR}{LF}+KEEPAIVEA:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEA? +KEEPAIVEA:1,60,15,3 OK
set up	AT+KEEPAIVEA=<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEA=1,60,15,3 OK
parameter		
enable	Whether to enable, range: 0,1	Default 1
idle	Heart rate cycle, range: 1 to 65,535	By default, it is 60
interval	Send interval, range: 1~100	Default is 15
count	Number of retry attempts, range: 1~10	By default, it is 3

3.48. AT+KEEPAIVEB

	explain	Example and notes
function	Query/set the keepalive parameter of socket B	
Directive	AT+KEEPAIVEB=?{CR}{LF} {CR}{LF}+KEEPAIVEB:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEB=? +KEEPAIVEB:<0,1>,<1~65535>,<1~100>,<1~10> OK
query	AT+KEEPAIVEB{CR}{LF} or AT+KEEPAIVEB?{CR}{LF}	AT+KEEPAIVEB? +KEEPAIVEB:1,60,15,3

	{CR}{LF}+KEEPAIVEB:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	OK
set up	AT+KEEPAIVEB=<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEB=1,60,15,3 OK
parameter		
enable	Whether to enable, range: 0,1	Default 1
idle	Heart rate cycle, range: 1 to 65535	By default, it is 60
interval	Send interval, range: 1 to 100	Default is 15
count	Number of retry attempts, range: 1 to 10	By default, it is 3

3.49. AT+KEEPAIVEC

	explain	Example and notes
function	Query/set the keepalive parameter of socket C	
Directive	AT+KEEPAIVEC=?{CR}{LF} {CR}{LF}+KEEPAIVEC:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEC=? +KEEPAIVEC:<0,1>,<1~65535>,<1~100>,<1~10> OK
query	AT+KEEPAIVEC{CR}{LF} or AT+KEEPAIVEC?{CR}{LF} {CR}{LF}+KEEPAIVEC:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEC? +KEEPAIVEC:1,60,15,3 OK
set up	AT+KEEPAIVEC=<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVEC=1,60,15,3 OK
parameter		

enable	Whether to enable, range: 0,1	Default 1
idle	Heart rate cycle, range: 1 to 65,535	By default, it is 60
interval	Send interval, range: 1 to 100	Default is 15
count	Number of retry attempts, range: 1 to 10	By default, it is 3

3.50. AT+KEEPAIVED

	explain	Example and notes
function	Query/set the keepalive parameter of socket D	
Directive	AT+KEEPAIVED=?{CR}{LF} {CR}{LF}+KEEPAIVED:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVED=? +KEEPAIVED:<0,1>,<1~65535>,<1~100>,<1~10> OK
query	AT+KEEPAIVED{CR}{LF} or AT+KEEPAIVED?{CR}{LF} {CR}{LF}+KEEPAIVED:<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVED? +KEEPAIVED:1,60,15,3 OK
set up	AT+KEEPAIVED=<enable>,<idle>,<interval>,<count>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+KEEPAIVED=1,60,15,3 OK
parameter		
enable	Whether to enable, range: 0,1	Default 1
idle	Heart rate cycle, range: 1 to 65535	By default, it is 60
interval	Send interval, range: 1 to 100	Default is 15
count	Number of retry attempts, range: 1 to 10	By default, it is 3

3.51. AT+SHORTATM

	explain	Example and notes
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function	Query/set socket A short connection timeout	
Directive	AT+SHORTATM=?{CR}{LF} {CR}{LF}+SHORTATM:<1~65535(s)>{CR}{LF}{C R}{LF}OK{CR}{LF}	AT+SHORTATM=? +SHORTATM:<1~65535(s)> OK
query	AT+SHORTATM{CR} or AT+SHORTATM?{CR} {CR}{LF}+SHORTATM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SHORTATM? +SHORTATM:10 OK
set up	AT+SHORTATM=<time>{CR} {CR}{LF}OK{CR}{LF}	AT+SHORTATM=10 OK
parameter		
time	socket A short connection timeout, range: 1 to 65535s	Default 10s

3.52. AT+SOCKRSNUM

	explain	Example and notes
function	Query/set the maximum number of SOCKET reconnections	
Directive	AT+SOCKRSNUM=?{CR}{LF} {CR}{LF}+SOCKRSNUM:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKRSNUM=? +SOCKRSNUM:<1~65535> OK
query	AT+SOCKRSNUM{CR} or AT+SOCKRSNUM?{CR} {CR}{LF}+SOCKRSNUM:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKRSNUM? +SOCKRSNUM:60 OK
set up	AT+SOCKRSNUM=<num>{CR}{LF}	AT+SOCKRSNUM=60

	{CR}{LF}OK{CR}{LF}	OK
parameter		
num	Maximum number of consecutive socket connections, range 1 to 65535	Default 60

3.53. AT+SOCKRSTIM

	explain	Example and notes
function	Query/set socket reconnection interval	
Directive	AT+SOCKRSTIM=?{CR}{LF} {CR}{LF}+SOCKRSTIM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKRSTIM=? +SOCKRSTIM:<10~65535(s)> OK
query	AT+SOCKRSTIM{CR} or AT+SOCKRSTIM?{CR} {CR}{LF}+SOCKRSTIM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKRSTIM? +SOCKRSTIM:10 OK
set up	AT+SOCKRSTIM=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKRSTIM=60 OK
parameter		
time	Socket connection reconnection time interval, range 10 to 65535s	Default 10s

3.54. AT+SOCKABK

	explain	Example and notes
function	Query/set socket A backup parameter	
Directive	AT+SOCKABK=?{CR}{LF} {CR}{LF}+SOCKABK:<address>,<port>{CR}{LF}	AT+SOCKABK=? +SOCKABK:<1~256

	} {CR}{LF}OK{CR}{LF}	bytes>,<1~65535> OK
query	AT+SOCKABK{CR} or AT+SOCKABK?{CR} {CR}{LF}+SOCKABK:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+SOCKABK? +SOCKABK:socket.usr.cn,2317 OK
set up	AT+SOCKABK=<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKABK=socket.usr.cn,2 317 OK
parameter		
address	Target address, supports domain names, range: 1 to 256 bytes	Default is empty
port	Target port, range 1 to 65535	Default 1

3.55. AT+SOCKBBK

	explain	Example and notes
function	Query/set socket B backup parameters	
Directive	AT+SOCKBBK=?{CR}{LF} {CR}{LF}+SOCKBBK:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+SOCKBBK=? +SOCKBBK:<1~256 bytes>,<1~65535> OK
query	AT+SOCKBBK{CR} or AT+SOCKBBK?{CR} {CR}{LF}+SOCKBBK:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+SOCKBBK? +SOCKBBK:socket.usr.cn,2317 OK
set up	AT+SOCKBBK=<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKBBK=socket.usr.cn,2 317

		OK
parameter		
address	Target address, supports domain names, range: 1 to 256 bytes	Default is empty
port	Target port, range 1 to 65535	Default 1

3.56. AT+SOCKCBK

	explain	Example and notes
function	Query/set socket C backup parameters	
Directive	AT+SOCKCBK=?{CR}{LF} {CR}{LF}+SOCKCBK:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+SOCKCBK=? +SOCKCBK:<1~256 bytes>,<1~65535> OK
query	AT+SOCKCBK{CR} or AT+SOCKCBK?{CR} {CR}{LF}+SOCKCBK:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+SOCKCBK? +SOCKCBK:socket.usr.cn,2317 OK
set up	AT+SOCKCBK=<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKCBK=socket.usr.cn,2 317 OK
parameter		
address	Target address, supports domain names, range: 1 to 256 bytes	Default is empty
port	Target port, range 1 to 65535	Default 1

3.57. AT+SOCKDBK

	explain	Example and notes
function	Query/set socket D backup parameters	
Directive	AT+SOCKDBK=?{CR}{LF} {CR}{LF}+SOCKDBK:<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDBK=? +SOCKDBK:<1~256 bytes>,<1~65535> OK
query	AT+SOCKDBK{CR} or AT+SOCKDBK?{CR} {CR}{LF}+SOCKDBK:<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDBK? +SOCKDBK:socket.usr.cn,2317 OK
set up	AT+SOCKDBK=<address>,<port>{CR} {CR}{LF}OK{CR}{LF}	AT+SOCKDBK=socket.usr.cn,2 317 OK
parameter		
address	Target address, supports domain names, range: 1 to 256 bytes	Default is empty
port	Target port, range 1 to 65535	Default 1

3.58. AT+SOCKABKEN

	explain	Example and notes
function	Query/set socket A Backup enabled	
Directive	AT+SOCKABKEN=?{CR}{LF} {CR}{LF}+SOCKABKEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKABKEN=? +SOCKABKEN:<ON,OFF> OK
query	AT+SOCKABKEN{CR} or	AT+SOCKABKEN?

	AT+SOCKABKEN?{CR} {CR}{LF}+SOCKABKEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	+SOCKABKEN:ON OK
set up	AT+SOCKABKEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKABKEN=ON OK
parameter		
sta	Socket A backup enabled status ON: enable OFF: prohibit	by default OFF

3.59. AT+SOCKBBKEN

	explain	Example and notes
function	Query/set socket B backup enabled	
Directive	AT+SOCKBBKEN=?{CR}{LF} {CR}{LF}+SOCKBBKEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBBKEN=? +SOCKBBKEN:<ON,OFF> OK
query	AT+SOCKBBKEN{CR} or AT+SOCKBBKEN?{CR} {CR}{LF}+SOCKBBKEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBBKEN? +SOCKBBKEN:ON OK
set up	AT+SOCKBBKEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKBBKEN=ON OK
parameter		
sta	Socket B backup enabled status ON: enable OFF: prohibit	by default OFF

3.60. AT+SOCKCBKEN

	explain	Example and notes
function	Query/Setting socket C backup enabled	
Directive	AT+SOCKCBKEN=?{CR}{LF} {CR}{LF}+SOCKCBKEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCBKEN=? +SOCKCBKEN:<ON,OFF> OK
query	AT+SOCKCBKEN{CR} or AT+SOCKCBKEN?{CR} {CR}{LF}+SOCKCBKEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCBKEN? +SOCKCBKEN:ON OK
set up	AT+SOCKCBKEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKCBKEN=ON OK
parameter		
sta	Socket C backup enabled status ON: enable OFF: prohibit	by default OFF

3.61. AT+SOCKDBKEN

	explain	Example and notes
function	Query/set socket D backup enabled	
Directive	AT+SOCKDBKEN=?{CR}{LF} {CR}{LF}+SOCKDBKEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDBKEN=? +SOCKDBKEN:<ON,OFF> OK
query	AT+SOCKDBKEN{CR} or AT+SOCKDBKEN?{CR} {CR}{LF}+SOCKDBKEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDBKEN? +SOCKDBKEN:ON OK

set up	AT+SOCKDBKEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SOCKDBKEN=ON OK
parameter		
sta	Socket D backup enabled status ON: enable OFF: prohibit	by default OFF

3.62. AT+REGEN

	explain	Example and notes
function	Query/Setting up the registration package enables	
Directive	AT+REGEN=?{CR}{LF} {CR}{LF}+REGEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGEN=? +REGEN:<ON,OFF> OK
query	AT+REGEN{CR} or AT+REGEN?{CR} {CR}{LF}+REGEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGEN? +REGEN:OFF OK
set up	AT+REGEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGEN=OFF OK
parameter		
sta	Registered package enabled status ON: open OFF: close	give tacit consent to OFF

3.63. AT+REGTP

	explain	Example and notes
function	Query/sets the content type of the registration package	
Directive	AT+REGTP=?{CR}{LF} {CR}{LF}+REGTP:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGTP=? +REGTP:<ICCID,IMEI,SN,USER, CLOUD> OK
query	AT+REGTP{CR}{LF} or AT+REGTP?{CR}{LF} {CR}{LF}+REGTP:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGTP? +REGTP:USER OK
set up	AT+REGTP=<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGTP=USER OK
parameter		
type	Registration data type ICCID: ICCID code IMEI: IMEI code SN: SN a sign or object indicating number USER: Custom data CLOUD: Someone Cloud	by default USER

3.64. AT+REGDT

	explain	Example and notes
function	Query/set custom registration information	
Directive	AT+REGDT=?{CR}{LF} {CR}{LF}+REGDT:<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGDT=? +REGDT:<1~300 bytes>

		OK
query	AT+REGDT{CR} or AT+REGDT?{CR} {CR}{LF}+REGDT:<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGDT? +REGDT:7777772E7573722E6 36E OK
set up	AT+REGDT=<data>{CR} {CR}{LF}OK{CR}{LF}	AT+REGDT=7777772E7573722 E636E OK
parameter		
data	Customize the packet data, up to 300 bytes, hex input	Default 7777772E7573722E636E, in ASCII code www.usr.cn (10 bytes)

3.65. AT+REGSND

	explain	Example and notes
function	Query/Setting the registration packet sending method	
Directive	AT+REGSND=?{CR}{LF} {CR}{LF}+REGSND:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGSND=? +REGSND:<LINK,DATA,LINK&D ATA> OK
query	AT+REGSND{CR} or AT+REGSND?{CR} {CR}{LF}+REGSND:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGSND? +REGSND:LINK OK
set up	AT+REGDT=<type>{CR}{LF}	AT+REGSND=LINK

	{CR}{LF}OK{CR}{LF}	OK
parameter		
type	Registration packet delivery method LINK: Connect to send a registration packet DATA: Data carrying registration package LINK&DATA: Supports both link sending and data carrying.	by default LINK

3.66. AT+CLOUD

	explain	Example and notes
function	Query/set the owner cloud device ID and password	
Directive	AT+CLOUD=?{CR}{LF} {CR}{LF}+CLOUD:<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+CLOUD=? +CLOUD:<20 bytes>,<8 bytes> OK
query	AT+CLOUD{CR} or AT+CLOUD?{CR} {CR}{LF}+CLOUD:<id>,<password>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+REGDT? +CLOUD:, OK
set up	AT+CLOUD=<id>,<password>{CR} {CR}{LF}OK{CR}{LF}	AT+CLOUD=123456789012345 67890,12345678 OK
parameter		
<id>	Device ID number, 20 bytes	
<password>	Device password, 8 bytes	

3.67. AT+HEARTEN

	explain	Example and notes
function	Query/Enable heartbeat packets	
Directive	AT+HEARTEN=?{CR}{LF} {CR}{LF}+HEARTEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTEN=? +HEARTEN:<ON,OFF> OK
query	AT+HEARTEN{CR} or AT+HEARTEN?{CR} {CR}{LF}+HEARTEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTEN? +HEARTEN:ON OK
set up	AT+HEARTEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTEN=ON OK
parameter		
sta	Heartbeat packet enabled status ON: open OFF: close	give tacit consent to ON

3.68. AT+HEARTTP

	explain	Example and notes
function	Query/set the sending mode of heartbeat packets	
Directive	AT+HEARTTP=?{CR}{LF} {CR}{LF}+HEARTTP:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTTP=? +HEARTTP:<COM,NET,DOUBLE > OK
query	AT+HEARTTP{CR} or AT+HEARTTP?{CR} {CR}{LF}+HEARTTP:<type>{CR}{LF}	AT+HEARTTP? +HEARTTP:NET

	{CR}{LF}OK{CR}{LF}	OK
set up	AT+HEARTTP=<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTTP=NET OK
parameter		
type	Heartbeat packet delivery method COM: Heartbeat packet is sent to serial port NET: Heartbeat packets are sent to the network DOUBLE: The heartbeat packet is sent to both serial port and network	by default NET

3.69. AT+HEARTDT

	explain	Example and notes
function	Query/set heartbeat packet data	
Directive	AT+HEARTDT=?{CR}{LF} {CR}{LF}+HEARTDT:<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTDT=? +HEARTDT:<1~300bytes> OK
query	AT+HEARTDT{CR} or AT+HEARTDT?{CR} {CR}{LF}+HEARTDT:<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTDT? +HEARTDT:7777772E7573722 E636E OK
set up	AT+HEARTDT=<data>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTDT=7777772E75737 22E636E OK

parameter		
data	Customize heartbeat packet data, up to 300 bytes, hex input	Default 7777772E7573722E636E, in ASCII code www.usr.cn (10 bytes)

3.70. AT+HEARTTM

	explain	Example and notes
function	Query/set the heartbeat packet sending interval	
Directive	AT+HEARTTM=?{CR}{LF} {CR}{LF}+HEARTTM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTTM=? +HEARTTM:<1~65535(s)> OK
query	AT+HEARTTM{CR} or AT+HEARTTM?{CR} {CR}{LF}+HEARTTM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTTM +HEARTTM:30 OK
set up	AT+HEARTTM=<time>{CR} {CR}{LF}OK{CR}{LF}	AT+HEARTTM=30 OK
parameter		
time	Heartbeat interval, range: 1 to 65,535 seconds	By default, 30 seconds

Note: When the heartbeat packet data type is LBS, if the heartbeat packet sending interval is less than 5 seconds, it will be sent every 5 seconds

3.71. AT+HEARTSORT

	explain	Example and notes
function	Query/set heartbeat packet data type	

Directive	AT+HEARTSORT=?{CR}{LF} {CR}{LF}+HEARTSORT:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTSORT=? +HEARTSORT:<ICCID,IMEI,SN, USER,LBS,GPS> OK
query	AT+HEARTSORT{CR}{LF} or AT+HEARTSORT?{CR}{LF} {CR}{LF}+HEARTSORT:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTSORT? +HEARTSORT:USER OK
set up	AT+HEARTSORT=<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTSORT=USER OK
parameter		
type	data type ICCID: ICCID code IMEI: IMEI code SN: SN a sign or object indicating number USER: Custom data LBS: Base station information GPS: GPS positioning information	by default USER

3.72. AT+HEART

	explain	Example and notes
function	Query/set all parameters of heartbeat packet	
Directive	AT+HEART=?{CR}{LF} {CR}{LF}+HEART:<hearten>,[hearttp,[heartso rt,[hearttm,[heartdt]]]]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEART=? +HEART:<ON,OFF>,[<NET/CO M/DOULE>,[<ICCID/IMEI/SN/L BS/USER/GPS>,[<time>],[<USE R_DATA>]]]]

		OK
query	AT+HEART{CR} or AT+HEART?{CR} {CR}{LF}+HEART::<hearten>,<hearttp>,<heartsort>,<hearttm>,<heartdt>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEART +HEART:ON,NET,USER,30,777 7772E7573722E636E OK
set up	AT+HEART=<hearten>,[hearttp],[heartsort],[hearttm],[heartdt]]]{CR} {CR}{LF}OK{CR}{LF}	AT+HEART=ON,NET,USER,30,777772E7573722E636E OK
parameter		
hearten	Heartbeat bag enabled ON: Enable heartbeat feature OFF: Do not enable the heartbeat feature	by default ON
hearttp	Heartbeat packet delivery method COM: Heartbeat packet is sent to serial port NET: Heartbeat packets are sent to the network DOUBLE: The heartbeat packet is sent to both serial port and network	by default NET
heartsort	Heartbeat packet sends data type: ICCID: ICCID code IMEI: IMEI code SN: SN a sign or object indicating number USER: Custom data LBS: Base station information GPS: GPS positioning information	by default USER
hearttm	Heartbeat packet sending interval, range:	By default, 30 seconds

	1 to 65535s	
heartdt	User heartbeat packet data, range: 1~300bytes	Default 7777772E7573722E636E, in ASCII code www.usr.cn (10 bytes)

3.73. AT+HTPTP

	explain	Example and notes
function	Query/set HTTP request mode	
Directive	AT+HTPTP=?{CR}{LF} {CR}{LF}+HTPTP:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTP=? +HTPTP:<GET,POST> OK
query	AT+HTPTP{CR} or AT+HTPTP?{CR} {CR}{LF}+HTPTP:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTP? +HTPTP:GET OK
set up	AT+HTPTP=<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTP=GET OK
parameter		
type	HTTP request methods GET: The Get Method POST: Post style	by default GET

3.74. AT+HTPURL

	explain	Example and notes
function	Query/set the URL of an HTTP request	
Directive	AT+HTPURL=?{CR}{LF}	AT+HTPURL=?

	{CR}{LF}+HTPURL:<url>{CR}{LF} {CR}{LF}OK{CR}{LF}	+HTPURL:<1~100 bytes> OK
query	AT+HTPURL{CR} or AT+HTPURL?{CR} {CR}{LF}+HTPURL:<url>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPURL? +HTPURL:/1.php? OK
set up	AT+HTPURL=<url>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPURL=/1.php? OK
parameter		
url	The URL of the HTTP request, range: <1~100bytes>	Default is /1.php?

3.75. AT+HTPHD

	explain	Example and notes
function	Query/set the header information of an HTTP request	
Directive	AT+HTPHD=?{CR}{LF} {CR}{LF}+HTPHD:<head>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPHD=? +HTPHD:<1~200 bytes> OK
query	AT+HTPHD{CR} or AT+HTPHD?{CR} {CR}{LF}+HTPHD:<head>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPHD? +HTPHD:Accept:text/html[0D] [0A] OK
set up	AT+HTPHD=<head>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPHD=Accept:text/html[0D][0A]

		OK
parameter		
head	HTTP request header information, range: <1~200 bytes>	Default is Accept: text/html[0D][0A]

3.76. AT+HTPSV

	explain	Example and notes
function	Query/set server parameters for HTTP requests	
Directive	AT+HTPSV=?{CR}{LF} {CR}{LF}+HTPSV:<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPSV=? +HTPSV:<1~256 bytes>,<1~65535> OK
query	AT+HTPSV{CR} or AT+HTPSV?{CR} {CR}{LF}+HTPSV:<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPSV? +HTPSV:socket.usr.cn,80 OK
set up	AT+HTPSV=<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPSV=socket.usr.cn,80 OK
parameter		
address	Server address, supports domain names, range: 1 to 256 bytes	Default socket.usr.cn
port	Target port, range 1 to 65535	80

3.77. AT+HTPPK

	explain	Example and notes
function	Query/set the header information of the	

	HTTP request reply	
Directive	AT+HTPPK=?{CR}{LF} {CR}{LF}+HTPPK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPPK=? +HTPPK:<ON,OFF> OK
query	AT+HTPPK{CR} or AT+HTPPK?{CR} {CR}{LF}+HTPPK:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPPK? +HTPPK:ON OK
set up	AT+HTPPK=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPPK=ON OK
parameter		
sta	Whether to filter the header information of HTTP request reply ON: open OFF: close	give tacit consent to ON

3.78. AT+HTPTIM

	explain	Example and notes
function	Query/set the timeout time for an HTTP request	
Directive	AT+HTPTIM=?{CR}{LF} {CR}{LF}+HTPTIM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTIM=? +HTPTIM:<1~65535(s)> OK
query	AT+HTPTIM{CR} or AT+HTPTIM?{CR} {CR}{LF}+HTPTIM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTIM? +HTPTIM:10 OK

set up	AT+HTPTIM=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HTPTIM=10 OK
parameter		
time	Request timeout, range 1 to 65535 (s)	Default is 10

3.79. AT+DSTNUM

	explain	Example and notes
function	Query/set the target phone number of SMS transmission	
Directive	AT+DSTNUM=?{CR}{LF} {CR}{LF}+DSTNUM:<type>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+DSTNUM=? +DSTNUM:<1~20bytes> OK
query	AT+DSTNUM{CR} or AT+DSTNUM?{CR} {CR}{LF}+DSTNUM:<number>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+DSTNUM? +DSTNUM:1008610010 OK
set up	AT+DSTNUM=<number>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+DSTNUM=1008610010 OK
parameter		
number	The target mobile phone number of the short message, range: 1~20 bytes	1008610010

3.80. AT+SMSFLT

	explain	Example and notes
function	Query/set SMS filtering enabled	
Directive	AT+SMSFLT=?{CR}{LF} {CR}{LF}+SMSFLT:<sta>{CR}{LF}	AT+SMSFLT=? +SMSFLT:<ON,OFF>

	{CR}{LF}OK{CR}{LF}	OK
query	AT+SMSFLT{CR} or AT+SMSFLT?{CR} {CR}{LF}+SMSFLT:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SMSFLT? +SMSFLT:ON OK
set up	AT+SMSFLT=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SMSFLT=ON OK
parameter		
sta	SMS filtering enables control ON: open OFF: close	give tacit consent to ON

3.81. AT+MQTTSVR

	explain	Example and notes
function	Query/set the MQTT server address and port	
Directive	AT+MQTTSVR=?{CR}{LF} {CR}{LF}+MQTTSVR:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+MQTTSVR=? +MQTTSVR:<1~256bytes>,<1~65535> OK
query	AT+MQTTSVR{CR} or AT+MQTTSVR?{CR} {CR}{LF}+MQTTSVR:<address>,<port>{CR}{LF} } {CR}{LF}OK{CR}{LF}	AT+MQTTSVR? +MQTTSVR:cloudmqtt.usr.cn, 1883 OK
set up	AT+MQTTSVR=<address>,<port>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTSVR=cloudmqtt.usr.cn,1883

		OK
parameter		
address	MQTT server address, supports domain name, range: 1~256 bytes	Default mqtt.usr.cn
port	MQTT server port, range 1 to 65535	Default 1883

3.82. AT+MQTTUSER

	explain	Example and notes
function	Query/set the MQTT username	
Directive	AT+MQTTUSER=?{CR}{LF} {CR}{LF}+MQTTUSER:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTUSER=? +MQTTUSER:<1~255> OK
query	AT+MQTTUSER{CR} or AT+MQTTUSER?{CR} {CR}{LF}+MQTTUSER:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTUSER? +MQTTUSER:admin OK
set up	AT+MQTTUSER=<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTUSER=admin OK
parameter		
name	The MQTT username, which ranges from 1 to 255 bytes	Default is empty

3.83. AT+MQTTPSW

	explain	Example and notes
function	Query/set the MQTT password	
Directive	AT+MQTTPSW=?{CR}{LF}	AT+MQTTPSW=?

	{CR}{LF}+MQTTPSW:<pass>{CR}{LF} {CR}{LF}OK{CR}{LF}	+MQTTPSW:<1~255> OK
query	AT+MQTTPSW{CR} or AT+MQTTPSW?{CR} {CR}{LF}+MQTTPSW:<pass>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTPSW? +MQTTPSW:admin OK
set up	AT+MQTTPSW=<pass>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTPSW=admin OK
parameter		
pass	MQTT password, range 1 to 255 bytes	give tacit consent to admin

3.84. AT+MQTTCID

	explain	Example and notes
function	Query/set MQTT Client ID	
Directive	AT+MQTTCID=?{CR}{LF} {CR}{LF}+MQTTCID:<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCID=? +MQTTCID:<1~256> OK
query	AT+MQTTCID{CR} or AT+MQTTCID?{CR} {CR}{LF}+MQTTCID:<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCID? +MQTTCID:123456 OK
set up	AT+MQTTCID=<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCID=123456 OK
parameter		
id	MQTT client ID, range 1~256 bytes	Default 123456

3.85. AT+MQTTVER

	explain	Example and notes
function	Query/set MQTT version	
Directive	AT+MQTTVER=?{CR}{LF} {CR}{LF}+MQTTVER:<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTVER=? +MQTTVER:<3,4> OK
query	AT+MQTTVER{CR} or AT+MQTTVER?{CR} {CR}{LF}+MQTTVER:<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTVER? +MQTTVER:4 OK
set up	AT+MQTTVER=<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTVER=3 OK
parameter		
ver	MQTT edition : 3: 3.1 4: 3.1.1	Default 3

3.86. AT+MQTTMOD

	explain	Example and notes
function	Query/set MQTT serial port transmission mode	
Directive	AT+MQTTMOD=?{CR}{LF} {CR}{LF}+MQTTMOD:<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTMOD=? +MQTTMOD:<0,1> OK
query	AT+MQTTMOD{CR} or AT+MQTTMOD?{CR} {CR}{LF}+MQTTMOD:<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTMOD? +MQTTMOD:0 OK

set up	AT+MQTTMOD=<mode>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTMOD=1 OK
parameter		
mode	transmission mode : 0: Transparent mode 1: Distribution pattern	Default 0

3.87. AT+HEARTMT

	explain	Example and notes
function	Query/set the MQTT heartbeat sending channel	
Directive	AT+HEARTMT=?{CR}{LF} {CR}{LF}+HEARTMT:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTMT=? +HEARTMT:<0~10> OK
query	AT+HEARTMT{CR} or AT+HEARTMT?{CR} {CR}{LF}+HEARTMT:<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+HEARTMT? +HEARTMT:0 OK
set up	AT+HEARTMT=<num>{CR} {CR}{LF}OK{CR}{LF}	AT+HEARTMT=0 OK
parameter		
num	Range 0~10 0: Send to 1-10 topics (all topics) 1: Send to topic 1 2: Send to topic 2 ... (3、4、5、6、7、8、9) 10: Send to topic 10	Default 0

3.88. AT+MQTTCFG

	explain	Example and notes
function	Query/set the MQTT heartbeat packet time and clear the session flag enable status	
Directive	AT+MQTTCFG=?{CR}{LF} {CR}{LF}+MQTTCFG:<keepalive>,<cleansession>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCFG=? +MQTTCFG:<0~65535>,<0,1> OK
query	AT+MQTTCFG{CR} or AT+MQTTCFG?{CR} {CR}{LF}+MQTTCFG:<keepalive>,<cleansession>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCFG? +MQTTCFG:60,1 OK
set up	AT+MQTTCFG=<keepalive>,<cleansession> {CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTCFG=60,1 OK
parameter		
keepalive	The PING period of the MQTT heartbeat ranges from 0 to 65535s	Default 60
cleansession	Clear session flags: 1: Activation 0: Turn off	Default 1

3.89. AT+MQTTWILL

	explain	Example and notes
function	Query/set MQTT will messages	
Directive	AT+MQTTWILL=?{CR}{LF} {CR}{LF}+MQTTWILL:<sta>,<topic>,<qos>,<retain>,<msg>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTWILL=? +MQTTWILL:<0,1>,<1~128>,<0,1,2>,<0,1>,<1~128> OK

query	AT+MQTTWILL{CR} or AT+MQTTWILL?{CR} {CR}{LF}+MQTTWILL:<sta>[,<topic>,<qos>,<retain>,<msg>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTWILL? +MQTTWILL:0,/will,0,1,offline OK
set up	AT+MQTTWILL=<sta>[,<topic>,<qos>,<retain>,<msg>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTWILL=1,/will,0,1,offline OK
parameter		
sta	Will message enabled status: 0: Turn off 1: On	Default 0
topic	Subject of will, range 1 to 128 bytes	give tacit consent to /will
qos	Message level, range 0,1,2	Default 0
retain	Retained message 0: Turn off 1: Activation	Default 1
msg	Will message, range 1 to 128 bytes	By default offline

3.90. AT+MQTTSUBTP

	explain	Example and notes
function	Query/set MQTT subscription topic	
Directive	AT+MQTTSUBTP=?{CR}{LF} {CR}{LF}+MQTTSUBTP:<subnum>[,<suben>,<topic>,<qos>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTSUBTP=? +MQTTSUBTP:<1~10>[,<0,1>,<1~128>,<0,1,2>] OK
query	AT+MQTTSUBTP{CR} or AT+MQTTSUBTP?{CR} {CR}{LF}+MQTTSUBTP:<subnum>[,<suben>,<topic>,<qos>]{CR}{LF}	AT+MQTTSUBTP? +MQTTSUBTP: 1,0,SubTopic1,0

	<topic>,<qos>]{CR}{LF} {CR}{LF}OK{CR}{LF}	2,0,SubTopic2,0 3,0,SubTopic3,0 4,0,SubTopic4,0 5,0,SubTopic5,0 6,0,SubTopic6,0 7,0,SubTopic7,0 8,0,SubTopic8,0 9,0,SubTopic9,0 10,0,SubTopic10,0 OK
set up	AT+MQTTSUBTP=<subnum>[,<suben>,<topic>,<qos>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTSUBTP=1,1,SubTopic 1,0 OK
parameter		
subnum	Theme number, range 1~10	
suben	Subscription theme enabled: 0: Not enabled 1: Activation	Default 0
topic	Theme name, range 1-128 bytes	DefaultSubTopicN (N is the theme number)
qos	Message level, takes the value 0,1,2	Default 0

3.91. AT+MQTTPUBTP

	explain	Example and notes
function	Query/set MQTT publish topic	
Directive	AT+MQTTPUBTP=?{CR}{LF} {CR}{LF}+MQTTPUBTP:<pubnum>[,<puben> ,<topic>,<qos>,<retain>]{CR}{LF}	AT+MQTTPUBTP=? +MQTTPUBTP:<1~10>[,<0,1>,< 1~128>,<0,1,2>,<0,1>][,<0,1>]

	{CR}{LF}OK{CR}{LF}	OK
query	AT+MQTTPUBTP{CR} AT+MQTTPUBTP?{CR} {CR}{LF}+MQTTPUBTP:<pubnum>[,<puben> ,<topic>,<qos>,<retain>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTPUBTP? +MQTTPUBTP: 1,0,PubTopic1,0,0,0 2,0,PubTopic2,0,0,0 3,0,PubTopic3,0,0,0 4,0,PubTopic4,0,0,0 5,0,PubTopic5,0,0,0 6,0,PubTopic6,0,0,0 7,0,PubTopic7,0,0,0 8,0,PubTopic8,0,0,0 9,0,PubTopic9,0,0,0 10,0,PubTopic10,0,0,0 OK
set up	AT+MQTTPUBTP=<pubnum>[,<puben>,<to pic>,<qos>,<retain>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTPUBTP=1,1,PubTopic 1,0,0,0 OK
parameter		
pubnum	Theme number, range 1~10	
puben	Release theme enablement: 0: Not enabled 1: Activation	Default 0
topic	Theme name, range 1-128 bytes	Default PubTopicN (N is the theme number)
qos	Message level, takes values 0,1,2	Default 0
retain	Retained message 0: Turn off	Default 0

	1: Activation	
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3.92. AT+SSLEN

	explain	Example and notes
function	Query/set MQTT SSL encryption enabled	
Directive	AT+SSLEN=?{CR}{LF} {CR}{LF}+SSLEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLEN=? +SSLEN:<ON,OFF> OK
query	AT+SSLEN{CR} or AT+SSLEN?{CR} {CR}{LF}+SSLEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLEN? +SSLEN:OFF OK
set up	AT+SSLEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLEN=ON OK
parameter		
sta	SSL encryption enabled status: OFF: close ON: open	give tacit consent to OFF

3.93. AT+SSLCRT

	explain	Example and notes
function	Set up the MQTT SSL certificate and key	
Directive	AT+SSLCRT=?{CR}{LF} {CR}{LF}+SSLCRT:<crt_code>,<crt>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLCRT=? +SSLCRT:<0~2>,<1~2900bytes > OK

query	/	/
set up	AT+SSLCRT=<crt_code>,<crt>{CR}{LF} {CR}{LF}OK{CR}{LF}	summary
parameter		
crt_code	Certificate key type: 0 Root certificate 1: Client certificate 2: Client private key	
crt	The actual content and scope of the certificate is 1~2900 bytes. When setting it, you need to replace the carriage return in the certificate with [0D][0A]	

3.94. AT+SSLVER

	explain	Example and notes
function	Query/set the SSL encryption protocol version of MQTT	
Directive	AT+SSLVER=?{CR}{LF} {CR}{LF}+SSLVER:<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLVER=? +SSLVER:<TLS10,TLS12> OK
query	AT+SSLVER{CR} or AT+SSLVER?{CR} {CR}{LF}+SSLVER:<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLVER? +SSLVER:TLS12 OK
set up	AT+SSLVER=<ver>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLVER=TLS10 OK
parameter		
ver	SSL encryption protocol version: TLS10,	Default TLS12

	TLS12	
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3.95. AT+SSLAUTH

	explain	Example and notes
function	Query/set the SSL authentication mode of MQTT	
Directive	AT+SSLAUTH=?{CR}{LF} {CR}{LF}+SSLAUTH:<auth>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLAUTH=? +SSLAUTH:<NONE,PEER,ALL> OK
query	AT+SSLAUTH{CR} or AT+SSLAUTH?{CR} {CR}{LF}+SSLAUTH:<auth>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLAUTH? +SSLAUTH:ALL OK
set up	AT+SSLAUTH=<auth>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLAUTH=PEER OK
parameter		
auth	SSL authentication method: NONE: Certificate not validated PEER: Verify server certificate ALL: Two-way authentication	give tacit consent to ALL

3.96. AT+ALIREGION

	explain	Example and notes
function	Query/set the regional information of Aliyun	
Directive	AT+ALIREGION=?{CR}{LF} {CR}{LF}+ALIREGION:<region>{CR}{LF}	AT+ALIREGION=? +ALIREGION:<1~32>

	{CR}{LF}OK{CR}{LF}	OK
query	AT+ALIREGION{CR} or AT+ALIREGION?{CR} {CR}{LF}+ALIREGION:<region>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIREGION? +ALIREGION:cn-shanghai OK
set up	AT+ALIREGION=<region>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIREGION=cn-shanghai OK
parameter		
region	Aliyun geographical information, range 1~32 bytes	Default cn-shanghai

3.97. AT+ALIPRODKEY

	explain	Example and notes
function	Query/set the product secret key of Aliyun	
Directive	AT+ALIPRODKEY=?{CR}{LF} {CR}{LF}+ALIPRODKEY:<key>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIPRODKEY=? +ALIPRODKEY:<1~20> OK
query	AT+ALIPRODKEY{CR} or AT+ALIPRODKEY?{CR} {CR}{LF}+ALIPRODKEY:<key>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIPRODKEY? +ALIPRODKEY:h8i2LytKa77 OK
set up	AT+ALIPRODKEY=<key>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIPRODKEY=h8i2LytKa77 OK
parameter		
key	Aliyun product device secret key, range 1~20 bytes	

3.98. AT+ALIDEVNAME

	explain	Example and notes
function	Query/set Aliyun device name	
Directive	AT+ALIDEVNAME=?{CR}{LF} {CR}{LF}+ALIDEVNAME:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVNAME=? +ALIDEVNAME:<1~32> OK
query	AT+ALIDEVNAME{CR} or AT+ALIDEVNAME?{CR} {CR}{LF}+ALIDEVNAME:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVNAME? +ALIDEVNAME:Cat-1 OK
set up	AT+ALIDEVNAME=<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVNAME=Cat-1 OK
parameter		
name	Alibaba Cloud device name, range 1~32 bytes	

3.99. AT+ALIDEVSEC

	explain	Example and notes
function	Query/set Aliyun device secret key	
Directive	AT+ALIDEVSEC=?{CR}{LF} {CR}{LF}+ALIDEVSEC:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVSEC=? +ALIDEVSEC:<1~64> OK
query	AT+ALIDEVSEC{CR} or AT+ALIDEVSEC?{CR} {CR}{LF}+ALIDEVSEC:<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVSEC? +ALIDEVSEC:09d5b994dbfc1fc f1af193743b0296b5

		OK
set up	AT+ALIDEVSEC=<name>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVSEC=09d5b994dbfc 1fcf1af193743b0296b5 OK
parameter		
name	Aliyun device secret key, range 1~64 bytes	

3.100. AT+ALIDEVID

	explain	Example and notes
function	Query/set Aliyun device ID	
Directive	AT+ALIDEVID=?{CR}{LF} {CR}{LF}+ALIDEVID:<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVID=? +ALIDEVID:<1~24> OK
query	AT+ALIDEVID{CR} or AT+ALIDEVID?{CR} {CR}{LF}+ALIDEVID:<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVID? +ALIDEVID:12345678 OK
set up	AT+ALIDEVID=<id>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+ALIDEVID=12345678 OK
parameter		
id	Aliyun device ID, range 1~24 bytes	

3.101. AT+MQTTSTA

	explain	Example and notes
function	Query the MQTT connection status	

Directive	/	/
query	AT+MQTTSTA{CR} or AT+MQTTSTA?{CR} {CR}{LF}+MQTTSTA:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MQTTSTA? +MQTTSTA:Disconnected OK
set up	/	/
parameter		
sta	MQTT connection status: disconnected not connected Connected has been connected	

3.102. AT+SSLCFG

	explain	Example and notes
function	Query/set SNI verification enabled status	
Directive	AT+SSLCFG=?{CR}{LF} {CR}{LF}+SSLCFG:<ON,OFF>,<ON,OFF>,<ON,OFF>,<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLCFG=? +SSLCFG:<ON,OFF>,<ON,OFF>,<ON,OFF>,<ON,OFF> OK
query	AT+SSLCFG{CR} or AT+SSLCFG?{CR} {CR}{LF}+SSLCFG:<sta1>,<sta2>,<sta3>,<sta4>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLCFG? +SSLCFG:ON,OFF,OFF,OFF OK
set up	AT+SSLCFG=<sta1>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SSLCFG=ON OK
parameter		
sta1	SNI verification enabled status: ON: Enable SNI verification OFF: Disable SNI verification	give tacit consent to OFF

sta2	Reservations, default configuration	/
sta3	Reservations, default configuration	/
sta4	Reservations, default configuration	/

3.103. AT+NTPSVR

	explain	Example and notes
function	Query/set NTP server parameters	
Directive	AT+NTPSVR=?{CR}{LF} {CR}{LF}+NTPSVR:<SVR1>,[<SVR2>,<SVR3>,<SVR4>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPSVR=? +NTPSVR:<SVR1>,[<SVR2>,<SVR3>,<SVR4>] OK
query	AT+NTPSVR{CR} or AT+NTPSVR?{CR} {CR}{LF}+NTPSVR:<SVR1>,[<SVR2>,<SVR3>,<SVR4>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPSVR? +NTPSVR:cn.ntp.org.cn OK
set up	AT+NTPSVR=<SVR1>,[<SVR2>,<SVR3>,<SVR4>]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPSVR=cn.ntp.org.cn OK
parameter		
SVRx	Server address, supports domain name, range: 1 to 100 bytes, up to 4, separated by ","	Default is cn.ntp.org.cn,us.ntp.org.cn

3.104. AT+NTPEN

	explain	Example and notes
function	Query/set NTP time synchronization function enabled	
Directive	AT+NTPEN=?{CR}{LF} {CR}{LF}+NTPEN:<sta>{CR}{LF}	AT+NTPEN=? +NTPEN:<ON,OFF>

	{CR}{LF}OK{CR}{LF}	OK
query	AT+NTPEN{CR} or AT+NTPEN?{CR} {CR}{LF}+NTPEN:<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPEN? +NTPEN:OFF OK
set up	AT+NTPEN=<sta>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPEN=ON OK
parameter		
sta	Whether to enable the NTP time setting function ON: open OFF: close	give tacit consent to OFF

3.105. AT+NTPTM

	explain	Example and notes
function	Query/set the NTP time synchronization period	
Directive	AT+NTPTM=?{CR}{LF} {CR}{LF}+NTPTM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPTM=? +NTPTM:<1~65535(m)> OK
query	AT+NTPTM{CR} or AT+NTPTM?{CR} {CR}{LF}+NTPTM:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPTM? +NTPTM:60 OK
set up	AT+NTPTM=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+NTPTM=60 OK

parameter		
time	NTP time synchronization cycle, range 1 to 65535 (m)	The default is 60 minutes

3.106. AT+SIMSWITCH

	explain	Example and notes
function	Query/set SIM card operation mode	
Directive	AT+SIMSWITCH=?{CR}{LF} {CR}{LF}+SIMSWITCH:<ctrl>,<simID>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SIMSWITCH=? +SIMSWITCH:<0,2>,[0,1] OK
query	AT+SIMSWITCH{CR}{LF} or AT+SIMSWITCH?{CR}{LF} {CR}{LF}+SIMSWITCH:<ctrl>,[simID]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SIMSWITCH? +SIMSWITCH:1,0 OK
set up	AT+SIMSWITCH=<ctrl>,[simID]{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SIMSWITCH=2,0 OK
parameter		
ctrl	Ctrl: Mode selection 0: Lock the card mode, lock the single card, disable SIM card detection and switching, can be used when testing 1: Mode 1, external card priority, use the external card when you plug in the external card; use our built-in card when you do not plug in the external card 2: Mode 2, dual card standby mode, when both external card and built-in card data plans are used, you can switch between	Default mode 1, external card priority

	them when the network is not good or one card is in arrears, so as to ensure that the device can normally connect to the server	
simID	simID: Select an external card or a built-in card 0: External cards 1: Built-in card	Default built-in card Note: This parameter is not enabled when the external card priority mode is selected.

3.107. AT+MODBUSEN

	explain	Example and Notes
function	Enable modbus RTU/TCP protocol conversion by setting/Query	
Directive	AT+MODBUSEN=?{CR}{LF} {CR}{LF}+MODBUSEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MODBUSEN=? +PRPTEN:<ON,OFF> OK
query	AT+MODBUSEN{CR}{LF} or AT+MODBUSEN?{CR}{LF} {CR}{LF}+MODBUSEN:<enable>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MODBUSEN? +MODBUSEN:ON OK
set up	AT+MODBUSEN=<enable>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+MODBUSEN=ON OK
parameter		
enable	Whether enabled, ON: enable OFF: Not enabled	give tacit consent to OFF

3.108. AT+EDGEEN

	explain	Example and notes
function	Set/Query modbus edge acquisition enabled status	
Directive	AT+EDGEEN=?{CR}{LF} {CR}{LF}+EDGEEN:<ON,OFF>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+EDGEEN=? +EDGEEN:<ON,OFF> OK
query	AT+EDGEEN{CR}{LF} or AT+EDGEEN?{CR}{LF} {CR}{LF}+EDGEEN:<enable>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+EDGEEN? +EDGEEN:ON OK
set up	AT+EDGEEN=<enable>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+EDGEEN=ON OK
parameter		
enable	Whether to enable ON: enable OFF: Not enabled	give tacit consent to OFF

3.109. AT+EDGERPTMOD

	explain	Example and notes
function	Set/Query edge acquisition report mode	
Directive	AT+EDGERPTMOD=?{CR}{LF} {CR}{LF}+EDGERPTMOD:<mod>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+EDGERPTMOD=? +EDGERPTMOD:<0,1> OK
query	AT+EDGERPTMOD{CR}{LF} or AT+EDGERPTMOD?{CR}{LF} {CR}{LF}+EDGERPTMOD:<mod>{CR}{LF}	AT+EDGERPTMOD? +EDGERPTMOD:1

	{CR}{LF}OK{CR}{LF}	OK
set up	AT+EDGERPTMOD=<mod>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+EDGERPTMOD=0 OK
parameter		
mod	Reporting mode of collection ON: Through-transmission reporting OFF: JSON package report	By default, 1

3.110. AT+COLLECTTIME

	explain	Example and notes
function	Query/sets the Modbus polling period polling interval	
Directive	AT+COLLECTTIME=?{CR}{LF} {CR}{LF}+COLLECTTIME:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+COLLECTTIME=? +COLLECTTIME:<1~65535(s)> OK
query	AT+COLLECTTIME{CR} or AT+COLLECTTIME?{CR} {CR}{LF}+COLLECTTIME:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+COLLECTTIME? +COLLECTTIME:30 OK
set up	AT+COLLECTTIME=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+COLLECTTIME=60 OK
parameter		
time	Periodical polling interval, range 1 to 65535 (s) Setting 1 means that the configuration is automatically configured without periodic interval polling according to the instruction	By default, 30

3.111. AT+POLLTIME

	explain	Example and notes
function	Query/sets the polling interval of the Modbus polling collection point	
Directive	AT+POLLTIME=?{CR}{LF} {CR}{LF}+POLLTIME:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+POLLTIME=? +POLLTIME:<1~65536(ms)> OK
query	AT+POLLTIME{CR} or AT+POLLTIME?{CR} {CR}{LF}+POLLTIME:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+POLLTIME? +POLLTIME:100 OK
set up	AT+POLLTIME=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+POLLTIME=200 OK
parameter		
time	Polling interval Range 1 to 65,536 (ms)	By default it is 100

3.112. AT+POLLTIMEOUT

	explain	Example and notes
function	Query/set the collection timeout of Modbus polling	
Directive	AT+POLLTIMEOUT=?{CR}{LF} {CR}{LF}+POLLTIMEOUT:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+POLLTIMEOUT=? +POLLTIMEOUT:<50~65536(m s)> OK
query	AT+POLLTIMEOUT{CR} or AT+POLLTIMEOUT?{CR} {CR}{LF}+POLLTIMEOUT:<time>{CR}{LF}	AT+POLLTIMEOUT? +POLLTIMEOUT:200

	{CR}{LF}OK{CR}{LF}	OK
set up	AT+POLLTIMEOUT=<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+POLLTIMEOUT=100 OK
parameter		
time	Waiting time for timeout Range 50~65536 (ms)	By default, 200

3.113. AT+INSERTDB

	explain	Example and notes
function	Set the Modbus polling collection point information	
query	nonsupport	
set up	AT+INSERTDB=<num>,<name>,<time>,<sid> >,<regtype>,<regadd>,<datatype>,<range> >,<report>,<data_value>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+INSERTDB=1,MPPT1,1,3,05 24,1,0.01,1,0 OK
parameter		
num	Data point label, not repeatable. Range 0 to 199	
name	Variable name, not repeated. Range 1-20 bytes	
sid	From machine address, range 1-247	
regtype	Register type, i.e. function code 1 --Coils Status (0x) 2-- Discrete Inputs (1x) 3--Holding Registers (4x) 4 --Input Registers (3x)	
regadd	Register address. Range 0-65535 bytes	
datatype	Data type. Range 0-9	

	0--bool Boolean type 1--16 bits unsigned 2--16 bit signed 3--32 bit signed (AB CD) 4--32 bit signed (CD AB) 5--32 bits unsigned (AB CD) 6--32 bit unsigned (CD AB) 7--32 bit floating point number (AB CD) 8--32 bit floating point number (CD AB)	
range	Multiples, 1-8 bytes (6 decimal places) cannot be set to 0	By default, 1
report	Reporting mode 0-no report 1-direct report 2-change report	
data_value	Size. 1-8 bytes (six decimal places) Default is 0	

3.114. AT+DELETEDB

	explain	Example and notes
function	Delete the created data collection points	
query	nonsupport	
set up	AT+DELETEDB=<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+DELETEDB=2 OK
parameter		
num	Data point label. Range 0 to 199	

3.115. AT+SELECTDB

	explain	Example and notes
function	Query the created data points	
query	AT+SELECTDB{CR} or AT+SELECTDB?{CR}	AT+SELECTDB?

	{CR}{LF}+SELECTDB:<time>{CR}{LF} {CR}{LF}OK{CR}{LF}	+SELECTDB:num=1,name=current,sid=1,regtype=3,regadd=1,datatype=2,range=1,report=1,value=1,o_value=0,n_value=0, OK
set up	AT+SELECTDB=<num>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SELECTDB=1 +SELECTDB:num=1,name=current,sid=1,regtype=3,regadd=1,datatype=2,range=1,report=1,value=1,o_value=0,n_value=0 OK
parameter		
num	Data point label. Range 0 to 199	

3.116. AT+SYSPPOINT

	explain	Example and Notes
function	Set/Query the configuration of the JSON reporting system point	
Directive	AT+SYSPPOINT=?{CR}{LF} {CR}{LF}+SYSPPOINT:<mod>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SYSPPOINT=? +SYSPPOINT:<0,1>,<0,1>,<0,1>,<0,1,2>,<0,1> OK
query	AT+SYSPPOINT{CR}{LF} or AT+SYSPPOINT?{CR}{LF} {CR}{LF}+SYSPPOINT:<sys_sn>,<sys_imei>,<s	AT+SYSPPOINT? +SYSPPOINT:0,0,0,0,0

	ys_ver>,<sys_time>,<sys_model>{CR}{LF} {CR}{LF}OK{CR}{LF}	OK
set up	AT+SYSPPOINT=<sys_sn>,<sys_imei>,<sys_v er>,<sys_time>,<sys_model>{CR}{LF} {CR}{LF}OK{CR}{LF}	AT+SYSPPOINT=1,1,1,1,1 OK
parameter		
System data point name	System parameter point translation reported by JSON After recognizing the following characters, it will automatically translate them into the device's own SN, IMEI, VER, TIME, MODEL and other information <sys_sn> 0-not configured 1-configured <sys_imei> 0-not configured 1-configured <sys_ver> 0-not configured 1-configured <sys_time> 0-Not configured 1-Configure timestamp 2-Configure local time <sys_model> 0-not configured 1- configured	Default is 0

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6. Update history

Version of firmware	Updated content	refresh time
V1.0.0	Initial Version	2025-9-26



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