



**[AT command set] Serial port server
(NE2 series)
(Serial port $\rightleftharpoons$ Ethernet)**



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Chapter 1 Basic Functions AT Command Set

- 1、 Enter AT command mode: the serial port sends +++, and sends AT again within 3 seconds. If the device echoes +OK, it enters AT command mode;
- 2、 This instruction manual supports NE2-D11/NE2-D12/NE2-S1/NE2-T1/NE2-T1B/NE2-T1M and other models of serial port servers;
- 3、 "<CR><LF>" and "\r \n " appearing in the following text represent line breaks in different text formats, which are actually HEX (0x 0D and 0x 0A);

Error code table:

error code	Illustrate
- 1	Invalid command format
1	Invalid command
2	system error
- 3	Not yet defined
- 4	Invalid parameter
- 5	Wrong password

1.1 Summary of Basic Configuration Instructions

Command	Description
A T+EXAT	Exit AT configuration mode
A T+MODEL	Device model
AT+NAME	Device name
A T+SN	Device ID
AT+REBT	Reboot the device
AT+RESTORE	Reset
AT+VER	Query firmware version
AT+UART	Serial port parameters
A T+MAC	Device MAC address
AT+WAN	Device network parameters
AT+LPORT	Device port
A T+SOCK	Working mode and target network parameters
AT+LINKSTA	Connection status feedback
AT+UARTCLR	Connect serial port buffer mode
AT+REGMOD	Registration package mode
AT+REGINFO	Registration package contents
AT+HEARTMOD	Heartbeat packet mode
AT+HEARTINFO	Heartbeat packet content
A T+SHORTM	Short connection
AT+TMORST	Restart after timeout
A T+TMOLINK	Disconnect and restart
AT+PASSEN	AT configuration password enable

1.2 Enter AT command

Command	AT
Function	Enter AT command mode
Send	AT
Return	<CR><LF>+OK<CR><LF> / <CR><LF>+OK =AT enable <CR><LF>
Remark	When there is no connection or configuration, return: + OK=AT enable Returns when connected: +OK

【Example】

Send first + ++ without line breaks

There is no need to wrap the line when sending AT.

Received\ r\n+OK\r\nor\ r\n + OK=AT enable \r\n

1.3 Exit AT command

Command	AT+ EXAT
Function	Enter AT command mode
Send	AT+ EXAT <CR><LF>
Return	<CR><LF>+OK<CR><LF>

【Example】

Send: A T+EXAT \ r\n

Received:\ r\n+OK\r\n

1.4 Query Model

Command	AT+ MODEL
Function	Query model
Send	AT+MODEL<CR><LF>
Return	<CR><LF>+OK= < Model String><CR><LF>
Remark	Model string: NE2-D11 NE2-D12 NE2-S1 NE2-T1 NE2-T1B

【Example】

Send: A T+MODEL \ r\n

Received: \ r\n +OK= NE2-D11 \r\n

1.5 Query/set name

Command	AT+ NAME
Function	Query and set names
Send (query)	AT+NAME<CR><LF>
Return (query)	<CR><LF>+OK= < Name String><CR><LF>
Send(setup)	AT+ NAME = < NAME String><CR><LF> (limit 1 0 bytes)
Return (settings)	<CR><LF>+OK<CR><LF>

【Example】

Inquire:

Send: A T+NAME \ r\n

Received: \ r\n +OK= admin \r\n

Set up:

Send: A T+NAME=001 \ r\n

Received: \ r\n +OK \r\n

1.6 Query/set ID

Command	AT+ SN
Function	Query and set ID
Send (query)	AT+SN<CR><LF>
Return (query)	<CR><LF>+OK=< SN String><CR><LF>
Send(setup)	AT+SN = < SN String><CR><LF> (limited to 2 4 bytes)
Return (settings)	<CR><LF>+OK<CR><LF>

【Example】

Inquire:

Send: A T+SN \ r\n

Received: \ r\n +OK=0001\r\n

Set up:

Send: A T+SN=111 \ r\n

Received: \ r\n +OK \r\n

1.7 Restart

Command	AT+ REBT
Function	Restart
Send	AT+REBT<CR><LF>
Return	<CR><LF>+OK<CR><LF>

【Example】

Send: A T+ REBT \r\n

Received: \r\n +OK \r\n

Wait for the reboot to complete.

1.8 Reset

Command	AT+ RESTORE
Function	reset
Send	AT+RESTORE<CR><LF>
Return	<CR><LF>+OK<CR><LF>

【Example】

Send: A T+ RESTORE\r\n

Received: \r\n +OK \r\n

Wait for the reboot to complete.

1.9 Query version information

Command	AT+ VER
Function	Query version information
Send	AT+VER<CR><LF>
Return	<CR><LF>+OK<CR><LF>

【Example】

Send: A T+ VER \r\n

Received: \r\n +OK = 9167-0-xx \r\n

1.10 Query/set serial port

Command	AT+ UART
Function	Query and set serial port
Send (query)	AT+UART<CR><LF>
Return (query)	<CR><LF>+OK=< Baud , Data, Stop, Parity , packetTime,packetLength ><CR><LF>
Send(setup)	AT+UART=< Baud , Data, Stop, Parity , packetTime,packetLength ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Baud (Baud rate) : 600 , 1200 , 2400 , 4800 , 9600 , 19200 , 38400 , 57600 , 115200, 230400 , 460800; Data (data bits) : 8 , 7, 6, 5 Stop (stop bit) : 1 (1 bit) , 2 (1.5 bits) , 3 (2 bits) Parity (check digit) : 0 (NONE) , 2 (E VEN) , 3 (O DD) packetTime (framing interval) : 1-125 (byte idle time) packetTime (framing length) : 10-1024 bytes

【Example】

Inquire:

Send: A T+ UART \ r\n

Received:\r\n+OK=115200,8,1, 0 , 1,1024 \r\n

Set up:

Send: A T+ UART= 115200,8,1, 0 , 1,1024 \ r\n

Received:\r\n+OK\r\n

1.11 Query MAC address

Command	AT+ MAC
Function	Query MAC address
Send	AT+MAC<CR>
Return	<CR><LF>+OK=< MAC ><CR><LF>
Remark	Return data format "xx -xx-xx-xx-xx-xx "

【Example】

Send: A T+ MAC\ r\n

Received:\r\n+OK=84 - C2 - E4 - 36 - 05 - A2\r\n

1.12 Query/set network parameters

Command	AT+ WAN
Function	Query and set network parameters
Send (query)	AT+WAN<CR><LF>
Return (query)	<CR><LF>+OK=< Mode , Address , M ask, Gateway , DNS ,DNS ><CR><LF>
Send(setup)	AT+WAN=< Mode , Address , M ask, Gateway , DNS ,DNS2 ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Mode: DHCP/STATIC Address : local IP address M ask : subnet mask Gateway : Gateway DNS: DNS server DNS: Alternate DNS server

【Example】

Inquire:

Send: A T+ WAN\ r\n

Received:\r\n+OK=STATIC,192.168.3.7,255.255.255.0,192.168.3.1,114.114.114.114,8.8.8.8 \r \n

Settings: (Dynamic IP)

Send : A T+ WAN=DHCP , 192.168.3.7,255.255.255.0,192.168.3.1,114.114.114.114,8.8.8.8 \r \n

Received:\r\n+OK\r\n

Settings: (static IP)

Send : AT+ WAN=STATIC , 192.168.3.7,255.255.255.0,192.168.3.1,114.114.114.114,8.8.8.8
\r \n
Received:\r\n+OK\r\n

1.13 Query/set local port number

Command	AT+ LPORT
Function	Query and set local port number
Send (query)	AT+LPORT =<linkId> <CR>
Return (query)	<CR><LF>+OK=< linkId, Value ><CR><LF>
Send(setup)	AT+LPORT=< linkId, Value ><CR>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Value (port number) : 0-65535,0 (client mode uses a random port, server mode needs to use "non-0" parameters, otherwise the device server fails to start) ;

【Example】

Inquire:

Send: A T+ LPORT =0 \r\n

Received:\r\n+OK= 0, 8887\r\n

Set up:

Send: A T+ LPORT = 0, 888 3 \r\n

Received:\r\n+OK\r\n

1.14 Query/set the local working mode and target device

network parameters

Command	AT+ SOCK
Function	Query and set network protocol parameters
Send (query)	AT+SOCK =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Model , R e mote IP, R e mote P ort><CR><LF>
Send(setup)	AT+SOCK=< linkId, Model , R e mote IP, R e mote P ort><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Model (working mode) : DISABLE, TCPC, TCPS, UDPC, UDPS, MQTTC, HTTPC ; Remote IP (target IP / domain name): A maximum domain name of 128 characters can be configured ; Remote Port (target port): 1-65535 ;

【Example】

Inquire:

Send: A T+ SOCK =0 \ r\n
 Received:\r\n+OK= 0, TCPC,192.168.3.3,8888\r\n
 Set up:
 Send: AT+SOCK= 0, TCPC,192.168.3.100,8886\ r\n
 Received:\r\n+OK\r\n

1.15 Check network link status

Command	AT+ LINKSTA
Function	Check network link status
Send	AT+LINKSTA =<linkId> <CR><LF>
Return	<CR><LF>+OK=< linkId, STA ><CR><LF>
Remark	STA : Connect/Disconnect

【Example】

Send: A T+ LINKSTA =0 \ r\n
 Received:\r\n+OK= 0, Disconnect\r\n

1.16 Query/set serial port cache clearing status

Command	AT+ UARTCLR
Function	Query and set serial port cache clearing status
Send (query)	AT+UARTCLR =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, STA ><CR><LF>
Send(setup)	AT+UARTCLR=< linkId, STA ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 STA : ON (enable connection clearing cache) OFF (disable connection clear cache)

【Example】

Inquire:
 Send: A T+ UARTCLR =0 \ r\n
 Received:\r\n+OK= 0, ON\r\n
 Set up:
 Send: A T+ UARTCLR= 0, OFF\ r\n
 Received:\r\n+OK\r\n

1.17 Query/set registration package mode

Command	AT+ REGMOD
Function	Query and set the registration package mode

Send (query)	AT+REGMOD=<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Status ><CR><LF>
Send(setup)	AT+REGMOD=< linkId, Status ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Status: OFF - disabled OLMAC - Send MAC on first connection OLSN - SN sent on first connection OLCSTM - First time connection sends customization EMBMAC - send MAC per packet EMBSN - Send SN per packet EMBCSTM - per pack Send custom

【Example】

Inquire:

Send: A T+ REGMOD=0 \ r\n

Received:\r\n+OK= 0, OFF\r\n

Set up:

Send: A T+ REGMOD= 0, OLMAC \ r\n

Received:\r\n+OK\r\n

1.18 Query/set custom registration package content

Command	REGINFO
Function	Query and set custom registration package content
Send (query)	AT+HEARTINFO=<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Mode, Data > <CR> <LF>
Send(setup)	AT+HEARTINFO=< linkId , Mode , Data ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Mode : data format (H EX) 1 hexadecimal , (S TR) string ; Data data: ASCII is limited to 128 bytes, HEX is limited to 128 bytes;

【Example】

Inquire:

Send: A T+ REGINFO=0 \ r\n

Received:\r\n+OK= 0, STR, regist msg\r\n

Set up:

Send: A T+ REGINFO = 0, STR, EBTYE TEST\ r\n

Received:\r\n+OK\r\n

1.19 Query/set network heartbeat packet

Command	AT+ NET HEART PKT
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Function	Query and set network heartbeat packets
Send (query)	AT+ NET HEART PKT=<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Mode, Time , Type , Data > <CR><LF>
Send(setup)	AT+ NET HEART PKT =< linkId , Mode , Time , Type , Data ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Mode: 0 (off), 1 (SN), 2 (MAC) , 3 (custom data) ; Time : Time 1 -65535 s; Type: data format (H EX) 1 hexadecimal , (S TR) string; Data data: ASCII is limited to 128 bytes, HEX is limited to 128 bytes;

【Example】

Inquire:

Send: A T+ NET HEART PKT=0 \ r\n

Received: \r\n+OK= 0,1,5,STR , net heart packet \r\n

Send: A T+ NET HEART PKT = 0,1,5,STR , net heart packet \ r\n

Received:\r\n+OK\r\n

1.20 Query/set serial heartbeat packet

Command	AT+ UART HEART PKT
Function	Query and set network heartbeat packets
Send (query)	AT+ UART HEART PKT <CR><LF>
Return (query)	<CR><LF>+OK=< Mode , Time , Type , Data > <CR><LF>
Send (setup)	AT+ UART HEART PKT =< Mode , Time , Type , Data ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Mode: 0 (off), 1 (SN), 2 (MAC) , 3 (custom data) ; Time : Time 1 -65535 s; Type: data format (H EX) 1 hexadecimal , (S TR) string; Data data: ASCII is limited to 128 bytes, HEX is limited to 128 bytes;

【Example】

Inquire:

Send: A T+ UART HEART PKT=0 \ r\n

Received: \r\n+OK= 1,5,STR , net heart packet \r\n

Send: A T+ UART HEART PKT = 0,1,5,STR , net heart packet \ r\n

Received:\r\n+OK\r\n

1.21Query/set short connection time

Command	AT+ SHORTM
Function	Query and set short connection time

Send (query)	AT+SHORTM =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Time ><CR><LF>
Send(setup)	AT+SHORTM=< linkId, Time ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Time : limit 0 - 65535 , 0 means off ;

【Example】

Inquire:

Send: AT+ SHORTM =0 \ r\n

Received:\r\n+OK=0,0 \ r\n

Set up:

Send: A T+ SHORTM = 0, 5\ r\n

Received:\r\n+OK\r\n

1.22 Query/set timeout restart time

Command	AT+ TMORST
Function	Query and set timeout restart time
Send (query)	AT+TMORST<CR><LF>
Return (query)	<CR><LF>+OK=< Time ><CR><LF>
Send(setup)	AT+TMORST=< Time ><CR><LF> (limit 60-65535s, 0 means off)
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Time : limit 60-65535s, 0 means off;

【Example】

Inquire:

Send: AT+ TMORST \ r\n

Received:\r\n+OK=300\r\n

Set up:

Send: A T+ SHORTM =350\ r\n

Received:\r\n+OK\r\n

1.23 Query/set network disconnection reconnection time

Command	AT+ TMOLINK
Function	Query and set the disconnection and reconnection time
Send (query)	AT+TMOLINK<CR><LF>
Return (query)	<CR><LF>+OK=< Times ><CR><LF>
Send(setup)	AT+TMOLINK=<Times> <CR> <LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Times (disconnection reconnection time) : limit 1 0 - 65535 , 0 means

	fast reconnection ;
--	---------------------

【Example】

Inquire:

Send: AT+ TMOLINK \ r\n

Received:\r\n+OK=5\r\n

Set up:

Send: A T+ TMOLINK = 10 \ r\n

Received:\r\n+OK\r\n

1.24Protocol distribution

Command	AT+ DISTRIBUTE
Function	Query and set protocol distribution enablement
Send (query)	AT+ DISTRIBUTE <CR><LF>
Return (query)	<CR><LF>+OK = <DIST> <CR> <LF>
Send(setup)	AT+ DISTRIBUTE =< DIST ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	DIST : 0-Turn off protocol distribution 1: Turn on protocol distribution

【Example】

Inquire:

Send: AT+ DISTRIBUTE \ r\n

Received:\r\n+OK= 0 \r\n

Set up:

Send: A T+ DISTRIBUTE = 1 \ r\n

Received:\r\n+OK\r\n

1.25Network fast AT

Command	AT+NETAT
Function	Query and set up network fast AT
Send (query)	AT+NETAT <CR><LF>
Return (query)	<CR><LF>+OK= <SW , HEAD > <CR><LF>
Send (setup)	AT+ DISTRIBUTE =< SW , HEAD ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	SW : 0-Turn off network fast AT 1: Turn on network fast AT

【Example】

Inquire:

Send: AT+ NETAT \ r\n

Received: \r\n+OK= 0,NETAT \r\n

Set up:

Send: A T+ NETAT = 1,NETAT \ r\n

Received:\r\n+OK\r\n

Quick example of using AT

【Example】

Inquire:

Send: NETAT +NAME \ r\n

Received: \r\n+OK= admin \r\n

Set up:

Send: NETAT +NAME = admin \ r\n

Received:\r\n+OK\r\n

1.26AT configuration password enable

Command	AT+ PASSEN
Function	Query and set AT configuration password enablement
Send (query)	AT+ PASSEN <CR><LF>
Return (query)	<CR><LF>+OK= <SW > <CR><LF>
Send(setup)	AT+ PASSEN =< SW ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	SW : OFF-turn off AT configuration password enablement ON: turn on AT configuration password enablement

【Example】

Inquire:

Send: AT+ PASSEN \ r\n

Received: \r\n+OK= OFF \r\n

Set up:

Send: A T+ PASSEN = ON \ r\n

Received:\r\n+OK\r\n

Chapter 2 Modbus Function AT Command Set

2.1 Modbus function command summary

Command	describe
AT+MODWKM0D	Mod bus mode
AT+MODPTCL	Protocol conversion
AT+MODGTWYTM	Storage gateway instruction storage time and query interval
AT+MODCMDEDIT	Mod bus RTU command pre-stored

2.2 Query Modbus address filtering

Command	AT +MODADDFLI
Function	Query and set Modbus filtering address
Send (query)	AT+MODADDFLI <CR><LF>
Return (query)	<CR><LF>+OK = <FilterAddr> <CR> <LF>
Send(setup)	AT+ MODADDFLI =< FliterAddr ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	FilterAddr : 0-255, 0: no filtering, 1-255, no filtering of packets with this address

Inquire:

Send: AT+ MODADDFLI \ r\n

Received:\r\n+OK= 0 \r\n

Set up:

Send: AT+ MODADDFLI = 1 \ r\n

Received:\r\n+OK\r\n

2.3 Query Modbus working mode and command timeout time

Command	AT+MODWKM0D
Function	Query and set Modbus working mode
Send (query)	AT+ MODWKM0D<CR><LF>
Return (query)	<CR><LF>+OK=<Mode >< Time out> <CR><LF>
Remark	Mode: NONE (disable MODBUS) SIMPL (Simple Protocol Translation) MULIT (multi-host mode) STORE (storage gateway) CONFIG (Configurable Gateway)

	AUTOUP (active upload mode) Timeout :0-65535 ;
--	--

Inquire:

Send: AT+ MODWKMOD \ r\n

Received:\r\n+OK= SIMPL , 100 \r\n

Set up:

Send: AT+ MODWKMOD =MULIT,1000 \ r\n

Received:\r\n+OK\r\n

2.4 Turn on Modbus T CP to Modbus RTU protocol conversion

Command	AT+MODPTCL
Function	Query and set protocol conversion (Modbus T CP <=> Modbus RTU)
Send (query)	AT+ MODPTCL <CR><LF>
Return (query)	<CR><LF>+OK=<Mode> <CR> <LF>
Remark	Mode: ON (enable protocol conversion) OFF (disable protocol conversion)

Inquire:

Send: AT+ MODPTCL \ r\n

Received:\r\n+OK= ON \r\n

Set up:

Send: AT+ MODPTCL = ON \ r\n

Received:\r\n+OK\r\n

2.5 Set Modbus gateway command storage time and automatic query interval

Command	AT+MODGTWYTM
Function	Query and configure Modbus gateway command storage time and automatic query interval
Send (query)	AT+ MODGTWYTM <CR><LF>
Return (query)	<CR><LF>+OK=< Time 1> < Time2 > <CR><LF>
Remark	Time 1 : Instruction storage time (1-255 seconds) Time2: Automatic query interval (1-65535 milliseconds)

Inquire:

Send: AT+ MODGTWYTM \ r\n

Received: \r\n+OK= 10 , 200 \r\n

Set up:

Send: AT+ MODGTWYTM = 5 , 100 \ r\n

Received:\r\n+OK\r\n

2.6 Modbus configuration gateway pre-stored command query and editing

Command	AT+MODCMDEDIT
Function	Modbus configuration gateway pre-stored command query and editing
Send (query)	AT+ MODCMDEDIT <CR><LF>
Return (query)	OK =<Mode> <CMD> <CR> <LF>
Remark	Mode : A DD add command ; DEL delete command ; CLR clear command; CMD : Modbus command (only supports standard Modbus RTU command, no need to fill in the verification, only read command 0 1 , 0 2 , 0 3 , 0 4 function code can be configured), the same command cannot be stored, otherwise return +E RR=- 4 ;

Inquire:

Send: AT+ MODCMDEDIT \ r\n

Received:\r\n+OK=\r\n

1: 02 03 00 00 00 02\r\n

2: 01 03 00 05 00 00\r\n

Set up:

Send: AT+ MODCMDEDIT = ADD,0103000A0003 \ r\n (Add command)

Received:\r\n+OK\r\n

Send: AT+ MODCMDEDIT = DEL,0103000A0003 \ r\n (delete command)

Received:\r\n+OK\r\n

Send: AT+ MODCMDEDIT = CLR,0103000A0003 \ r\n (clear command)

Received:\r\n+OK\r\n

Chapter 3 Internet of Things Function AT command set

3.1 Summary of Internet of Things Function commands

Command	describe
AT+HTPREQMODE	HTTP request method
AT+HTPURL	HTTP URL path
AT+HTPHEAD	HTTP header
AT+MQTTCLOUD	MQTT platform
AT+MQTKPALIVE	MQTT heartbeat keep-alive cycle
AT+MQTDEVID	MQTT Client ID
AT+MQTUSER	MQTT User Name
AT+MQTPASS	MQTT Password
AT+MQTTPRDKEY	Alibaba Cloud Product Key
AT+MQTSUB	MQTT subscription topic
AT+MQTPUB	MQTT publishing topic

3.2 MQTT and HTTP target IP or domain name configuration

Refer to " Query/Set the local working mode and target device network parameters ".

3.3 Query/set HTTP request method

Command	AT+HTPREQMODE
Function	Query and set HTTP client mode request method
Send (query)	AT+ HTPREQMODE =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Method ><CR><LF>
Send(setup)	AT+ HTPREQMODE =< linkId, Method ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Method: GET\POST

【Example】

Inquire:

Send: AT+HTPREQMODE \r\n

Received: \r\n+OK= 0, GET \r\n

Set up:

Send: AT+ HTPREQMODE = 0, POST \r\n

Received: \r\n+OK\r\n

3.4 Query/set HTTP URL path

Command	AT+HTPURL
Function	Query and set HTTP URL path
Send (query)	AT+ HTPURL =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, P ath><CR><LF>
Send(setup)	AT+ HTPURL =< linkId, Path ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	Path: HTTP request URL resource address (length limit 0-256 characters)

【Example】

Inquire:

Send: AT+ HTPURL =0 \r\n

Received: \r\n+OK= 0, /1.php? \r\n

Set up:

Send: A T+ HTPURL = 0, /view/ed7e65a90408763231126edb6f1aff00bfd57061.html \r\n

Received:\r\n+OK\r\n

3.5 Query/set HTTP headers

Command	AT+HTPHEAD
Function	Query and set HTTP headers
Send (query)	AT+ HTTPHEAD =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK= < linkId, Para , Head ><CR><LF>
Send(setup)	AT+ HTPHEAD = < linkId, Para , Head ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Para (HTTP returns serial port data with header or not) : D EL: without header; A DD: with Baotou; Head (HTTP request header) : length limit 256 characters ;

【Example】

Inquire:

Send: AT+ HTTPHEAD =0 \r\n

Received: \r\n+OK= 0, DEL,User-Agent: Mozilla/5.0 \r\n

Set up:

Send: A T+ HTTPHEAD = 0, ADD, Host:www.ebyte.com \r\n

Received:\r\n+OK\r\n

3.6 Query/set the MQTT target platform

Command	AT+MQTTCLOUD
Function	Query and set the MQTT target platform
Send (query)	AT+ MQTTCLOUD =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Server ><CR><LF>
Send(setup)	AT+ MQTTCLOUD =< linkId, Server ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Server (MQTT target platform) : S TANDARD (MQTT3.1.1 standard protocol server) O NENET (OneNET-MQTT server) A LI (Alibaba Cloud M QTT Server) B AIDU (Baidu Cloud M QTT Server) H UAWEI (Huawei Cloud M QTT server)

【Example】

Inquire:

Send: AT+ MQTTCLOUD =0 \ r\n

Received: \r\n+OK= 0, STANDARD \r\n

Set up:

Send: A T+ MQTTCLOUD = 0, BAIDU \ r\n

Received:\r\n+OK\r\n

3.7 Query/set the MQTT keep-alive heartbeat packet sending cycle

Command	AT+ M QTKPALIVE
Function	Query and set the MQTT keep-alive heartbeat packet time period
Send (query)	AT+ MQTKPALIVE =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Time ><CR><LF>
Send(setup)	AT+ MQTKPALIVE =< linkId, Time ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Time: MQTT keep-alive heartbeat time (limited to 30 - 1200 seconds, default 60 s , not recommended to be modified);

【Example】

Inquire:

Send: AT+ MQTKPALIVE =0 \ r\n

Received:\r\n+OK= 0, 60 \r\n

Set up:

Send: A T+ MQTKPALIVE = 0, 30 \ r\n

Received:\r\n+OK\r\n

3.8 Query/set MQTT device name (Client ID)

Command	AT+MQTDEVID
Function	Query and set the MQTT device name (Client ID)
Send (query)	AT+ MQTDEVID =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Client ID ><CR><LF>
Send(setup)	AT+ MQTDEVID =< linkId, Client ID ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Client ID : MQTT device name (Client ID) is limited to 256 characters in length ;

【Example】

Inquire:

Send: AT+ MQTDEVID =0 \ r\n

Received: \r\n+OK= 0, test-1 \r\n

Set up:

Send: A T+ MQTDEVID = 0,+OK=0,test-iot \ r\n

Received:\r\n+OK\r\n

3.9 Query/set MQTT user name (U ser Name / Device Name)

Command	AT+MQTUSER
Function	Query and set MQTT user name (User Name/ Device Name)
Send (query)	AT+ MQTUSER =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, User Name ><CR><LF>
Send(setup)	AT+ MQTUSER =< linkId, User Name ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 User Name : MQTT product ID (User Name / device name) is limited to 256 characters in length ;

【Example】

Inquire:

Send: AT+ MQTUSER =0 \ r\n

Received: \r\n+OK= 0, ebyte-IOT \r\n

Set up:

Send: A T+ MQTUSER = 0, 12345678&a1Ofdo5l0 \ r\n

Received:\r\n+OK\r\n

3.10 Query/set MQTT product password (MQTT password/Device Secret)

Command	AT+ M QTPASS
Function	and set MQTT login password (MQTT Password / Device Secret)
Send (query)	AT+ MQTPASS =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK=< linkId, Password ><CR><LF>
Send(setup)	AT+ MQTPASS =< linkId, Password ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Password: MQTT login password (MQTT Password/Device Secret) length limit is 256 characters;

【Example】

Inquire:

Send: AT+ MQTPASS =0 \ r\n

Received:\r\n+OK= 0, 12345678 \r\n

Set up:

Send: A T+ MQTPASS = 0, 87654321 \ r\n

Received:\r\n+OK\r\n

3.11 Query/set MQTT subscription topic

Command	AT+MQTSUB
Function	Query and set MQTT subscription topics
Send (query)	AT+ MQTSUB =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK= < linkId, Q o s>, < T opic><CR><LF>
Send (setup)	AT+ MQTSUB = < linkId, Q o s,Topic ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Qos : only supports levels 0 and 1; Topic: MQTT subscription topic (length limit 256 characters)

【Example】

Inquire:

Send: AT+ MQTSUB =0 \ r\n

Received:\r\n+OK= 0, 0,topic \r\n

Set up:

Send: A T+ MQTSUB = 0, 0,/ggip6zWo8of/TEST/user/SUB \ r\n

Received:\r\n+OK\r\n

3.12 Query/set MQTT publishing topic

Command	AT+MQTPUB
Function	Query and set MQTT publishing topics
Send (query)	AT+ MQTPUB =<linkId> <CR><LF>
Return (query)	<CR><LF>+OK= < linkId, Qos,T opic ,Cycle ><CR><LF>
Send(setup)	AT+ MQTPUB = < linkId, Qos,Topic ,Cycle ><CR><LF>
Return (settings)	<CR><LF>+OK<CR><LF>
Remark	linkId (link number): 0 or 1 Qos : only supports levels 0 and 1; Topic: MQTT publishing topic (length limit 256 characters) Cycle: Release level 1 retransmission interval (1-10s) (retransmission within 30s at this interval)

【Example】

Inquire:

Send: AT+ MQTPUB =0 \ r\n

Received:\r\n+OK= 0, 0,topic \r\n

Set up:

Send: A T+ MQTPUB = 0, 0,/ggip6zWo8of/TEST/user/PUB \ r\n

Received:\r\n+OK\r\n

Chapter 4 AT configuration example

4.1 Connecting to standard MQTT3.1.1 server

```
{
  Client id: 876275396
  mqtt username: 485233
  mqtt password: E_DEV01
  mqtt server : mqtt.heclouds.com
  mqtt port:6002
}
```

Restore factory settings before configuration to avoid enabling unused functions.

SEND (+++)

SEND within 3S (AT)

RECV(+OK=AT enable)

SEND (AT+RESTORE)

RECV(+OK)

The above steps can be used to restore factory settings using hardware.

Step 1: Enter AT configuration mode;

SEND (+++)

SEND within 3S (AT)

RECV(+OK=AT enable)

Step 2: Enable dynamic IP . If you configure the corresponding IP for the LAN M QTT server, dynamic IP is used here ;

SEND(AT+WAN=DHCP,192.168.3.7,255.255.255.0,192.168.3.1,114.114.114.114)

RECV(+OK)

Step 3: Configure the working mode and MQTT server address and port;

SEND(AT+SOCK=MQTTC,mqtt.heclouds.com,6002)

RECV(+OK=And local port has been set to 0)

Step 4: Select the M QTT platform;

SEND(AT+MQTTCLOUD=STANDARD)

RECV(+OK)

Step 5: Configure the Client id of the device;

SEND(AT+MQTDEVID=876275396)

RECV(+OK)

Step 6: Configure the mqtt username of the device;

SEND(AT+MQTUSER=485233)

RECV(+OK)

Step 7: Configure the mqtt password of the device;

SEND(AT+MQTPASS=E_DEV01)

RECV(+OK)

Step 8: Subscribe to the corresponding topic (Topic);

SEND(AT+MQTSUB=0,EBYTE_TEST)

RCV(+OK)

Step 9: Configure the topic used for publishing;

SEND(AT+MQTPUB=0,EBYTE_TEST)

RCV(+OK)

Step 10: Restart the device;

SEND(AT+REBT)

RCV(+OK)

Revise History

Version	Revision date	Revision Notes
1.0	2024-2-28	Initial version