



【AT instruction set】
E90-DTU(433C30E)-V2.0

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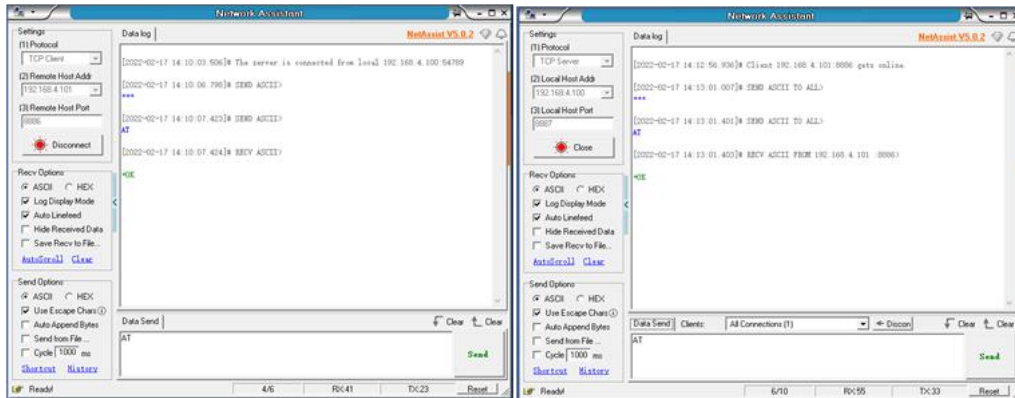
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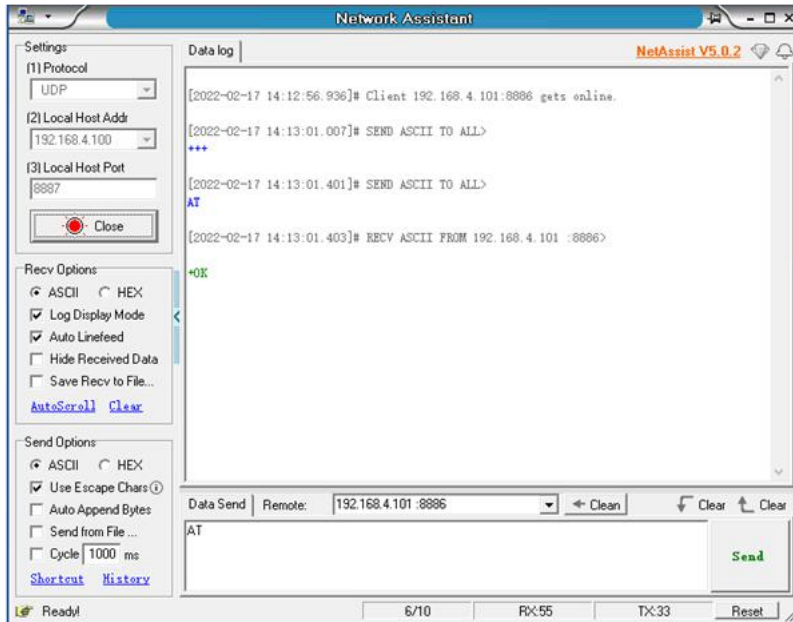
1. "Basic Functions" AT Command Set

Instructions for use of E90-DTU (433C30E) instruction manual:

1. Enter the AT command mode: the serial port sends +++ , send AT again within 3 seconds, and the device returns +OK , then enter the AT command mode;
2. This instruction manual supports E90-DTU(433C30E)_V2.0;
3. In the following text, "<CR><LF>" and "\r\n" represent line breaks in different text formats, which are actually HEX (0x0D and 0x0A);
4. Support network AT command configuration, which can realize network AT configuration through TCP/UDP transparent transmission mode, please do not use AT configuration in Modbus gateway mode.
5. TCP server/TCP client use:



6. UDP server/UDP client use:



Error code:

Error code:	explanation
-1	invalid command format
-2	invalid command
-3	Not yet defined
-4	invalid parameter
-5	Not yet defined

1.1. Summary of basic configuration instructions

instruction	description
AT+EXAT	Exit AT configuration mode
AT+MODEL	Model
AT+NAME	Name
AT+SN	SN ID
AT+REBT	reboot device
AT+RESTORE	reset
AT+VER	Query firmware version
AT+UART	Serial port parameters
AT+MAC	Device MAC address
AT+LORA	Wireless parameters of the machine
AT+WAN	Device network parameters
AT+LPORT	device port
AT+SOCK	Working mode and target network parameters
AT+LINKSTA	connection status feedback
AT+UARTCLR	Connect serial port cache mode
AT+REGMOD	Registration Package Mode
AT+REGINFO	Registration Package Contents
AT+HEARTMOD	Heartbeat Packet Mode
AT+HEARTINFO	Heartbeat package content
AT+SHORTM	short connection
AT+TMORST	timeout restart
AT+TMOLINK	Restart after disconnection
AT+WEBCFGPORT	Web configuration port

Enter AT command

Command	AT
Function	Enter AT command mode
Send	AT
Back	<CR><LF>+OK<CR><LF>/<CR><LF>+OK=AT enable<CR><LF>
Remark	Returns when there is no connection and configuration: +OK=AT enable Return when there is a connection: +OK

【Example】

Send +++ first without newline

No line break is required when sending AT

Received \r\n+OK\r\n or \r\n+OK=AT enable\r\n

1.2. Exit AT command

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

【Example】

Send: AT+EXAT\r\n

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

Wait for the device to restart.

1.3. Query model

Command	AT+MODEL
Function	query model
Send	AT+MODEL<CR><LF>
Back	<CR><LF>+OK=<Model String><CR><LF>
Remark	Modelstring:E90-DTU(433C30E)

【Example】

Send: AT+MODEL\r\n

Received:\r\n +OK= E90-DTU(433C30E)\r\n

1.4. Query/Set Name

Command	AT+NAME
---------	---------

Function	Query, set name
send (query)	AT+NAME<CR><LF>
return (query)	<CR><LF>+OK=<Name String><CR><LF>
send (setup)	AT+NAME=<Name String><CR><LF> (Limit 10 bytes)
return (setup)	<CR><LF>+OK<CR><LF>

1.5. Query/Set ID

Command	AT+SN
Function	Query, 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> (Limit 24 bytes)
return (setup)	<CR><LF>+OK<CR><LF>

【Example】

Inquire:

Send: AT+SN\r\n

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

set up:

Send: AT+SN=111\r\n

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

1.6. Reboot

command	AT+REBT
Function	reboot
Send	AT+REBT<CR><LF>
Back	<CR><LF>+OK<CR><LF>

【Example】

Send: AT+REBT\r\n

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

Wait for the restart to complete.

1.7. Factory reset

command	AT+RESTORE
Function	RESTORE
Send	AT+RESTORE<CR><LF>
Back	<CR><LF>+OK<CR><LF>

【Example】

Send: AT+RESTORE\r\n

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

Wait for the restart to complete.

1.8. Query version information

command	AT+VER
Function	Query version information
Send	AT+VER<CR><LF>
Back	<CR><LF>+OK<CR><LF>

【Example】

Send: AT+VER\r\n

Received: \r\n +OK =xxxx-x-xx\r\n

[Note] xx represents different versions;

1.9. Querying the MAC address

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

【Example】

Send: AT+MAC\r\n

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

1.10. Query/set the wireless parameters of the machine

Command	LORA
Function	Configure native lora parameters
send (query)	AT+LORA<CR><LF>
return (query)	<CR><LF>+OK=<ADDR><UART_BAUD><PARITY><AIR_BAUD><CH><FEC><TR_MOD><CRYPT><TX_POW><KEY><CR><LF>
send (setup)	AT+LORA=<ADDR><UART_BAUD><PARITY><AIR_BAUD><CH><FEC><TR_MOD><CRYPT><TX_POW><KEY><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	1. ADDR (local address): 0-65535

<p>2.UART_BAUD (serial port baud rate): 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200</p> <p>3.PARITY (serial parity bit): 8N1, 8O1, 8E1</p> <p>4. AIR_BAUD (airspeed): 1200, 2400, 4800, 9600, 19200, 38400, 50000, 70000</p> <p>5.CH (channel): 0-255</p> <p>6. FEC: FECOFF (forward error correction turned off), FECON (forward error correction turned on)</p> <p>7. TR_MOD (transmission mode) Continuous transmission: TRNOR, Fixed length transmission: TRFIX</p> <p>8.CRYPT (ciphertext function): ENCRYOFF (close the ciphertext function), ENCRYON (enable the ciphertext function)</p> <p>9.TX_POW (transmit power) High: PWMAX, Middle: PWMID, Low: PWLOW, Very low: PWMIN</p> <p>10.KEY (key): 0-255</p>
--

【Example】

Inquire:

Send: AT+ LORA \r\n

receive:

\r\n+OK=0,9600,8N1,1200,80,FECOFF,TRNOR,ENCRYOFF,PWMAX,0

set up:

send:

AT+LORA=0,9600,8N1,1200,80,FECOFF,TRNOR,ENCRYOFF,PWMAX,0

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

1.11. 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, Mask, Gateway, DNS><CR><LF>
send (setup)	AT+WAN=<Mode, Address, Mask, Gateway, DNS><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Mode: DHCP/STATIC Address: local IP address Mask: subnet mask Gateway: gateway DNS: DNS server

【Example】

Inquire:

Send: AT+WAN\r\n

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

Settings: (Dynamic IP)

Send: AT+WAN=DHCP, 192.168.3.7,255.255.255.0,192.168.3.1,114.114.114.114\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\r\n

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

1.12. Query/set the local port number

Command	AT+LPORT
Function	Query and set the local port number
send (query)	AT+LPORT<CR>
return (query)	<CR><LF>+OK=<Value><CR><LF>
send (setup)	AT+LPORT=<Value><CR>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Value (port number): 0-65535, 0 (the client mode uses a random port, and the server mode needs to use the "non-0" parameter, otherwise the device server will fail to open);

【Example】

Inquire:

Send: AT+LPORT\r\n

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

set up:

Send: AT+LPORT=8883\r\n

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

1.13. Query/set the working mode of the machine and network parameters of the target device

Command	AT+SOCK
Function	Query and set network protocol parameters
send	AT+SOCK<CR><LF>

(query)	
return (query)	<CR><LF>+OK=<Model, Remote IP, Remote Port><CR><LF>
send (setup)	AT+SOCK=<Model, Remote IP, Remote Port><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Model (working mode): TCPC, TCPS, UDPC, UDPS, MQTTC, HTTPC; Remote IP (target IP/domain name): a maximum of 128-character domain name can be configured; Remote Port (target port): 1-65535;

【Example】

Inquire:

Send: AT+SOCK\r\n

Received:\r\n+OK=TCPC,192.168.3.3,8888\r\n

set up:

Send: AT+SOCK=TCPC,192.168.3.100,8886\r\n

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

1.14. Query network link status

Command	AT+LINKSTA
Function	Query network link status
Send	AT+LINKSTA<CR><LF>
Back	<CR><LF>+OK=<STA><CR><LF>
Remark	STA: Connect/Disconnect

【Example】

Send: AT+LINKSTA\r\n

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

1.15. Query/set serial port cache clearing status

Command	AT+UARTCLR
Function	Query and set serial port cache clearing status
send (query)	AT+UARTCLR<CR><LF>
return (query)	<CR><LF>+OK=<STA><CR><LF>
send (setup)	AT+UARTCLR=<STA><CR><LF>

return (setup)	<CR><LF>+OK<CR><LF>
Remark	STA: ON (enable connection flushing cache) OFF (disables connection clearing cache)

【Example】

Inquire:

Send: AT+UARTCLR\r\n

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

set up:

Send: AT+UARTCLR=OFF\r\n

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

1.16. Query/Set Registration Package Mode

Command	AT+REGMOD
Function	Query and set registration package mode
send (query)	AT+REGMOD<CR><LF>
return (query)	<CR><LF>+OK=<Status><CR><LF>
send (setup)	AT+REGMOD=<Status><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Status: OFF - Disabled OLMAC - Send MAC on first connection OLCSTM - First Connection Send Custom EMBMAC - send MAC per packet EMBCSTM - Send Per Packet Custom

【Example】

Inquire:

Send: AT+REGMOD\r\n

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

set up:

Send: AT+UARTCLR=OLMAC\r\n

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

1.17. Query/set custom registration package content

Command	REGINFO
Function	Query and set custom registration package content

send (query)	AT+HEARTINFO<CR><LF>
return (query)	<CR><LF>+OK=<Mode><Data><CR><LF>
send (setup)	AT+HEARTINFO=<Mode><Data><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Mode: data format (HEX) hexadecimal, (STR) string; Data data: ASCII limit is 40 bytes, HEX limit is 20 bytes;

【Example】

Inquire:

Send: AT+REGINFO\r\n

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

set up:

Send: AT+REGINFO=STR,EBTYE TEST\r\n

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

1.18. Query/set the heartbeat packet mode

Command	AT+HEARTMOD
Function	Query and set the heartbeat packet mode
send (query)	AT+ HEARTMOD<CR><LF>
return (query)	<CR><LF>+OK=<Mode><Time><CR><LF>
send (setup)	AT+HEARTMOD=<Mode><Time><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Mode: NONE (closed), UART (serial heartbeat), NET (network heartbeat); Time: time 0-65535s, 0 (close the heartbeat);

【Example】

Inquire:

Send: AT+HEARTMOD\r\n

Received:\r\n+OK=NONE,0\r\n

Send: AT+HEARTMOD =NET,50\r\n

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

1.19. Query/Set Heartbeat Data

Command	AT+HEARTINFO
Function	Query and set heartbeat packet data
send (query)	AT+HEARTINFO<CR><LF>
return (query)	<CR><LF>+OK=<Mode><Data ><CR><LF>
send (setup)	AT+HEARTINFO=<Mode><Data><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Mode: data format (HEX) hexadecimal, (STR) string; Data data: ASCII limit is 40 bytes, HEX limit is 20 bytes;

【Example】

Inquire:

Send: AT+HEARTINFO\r\n

Received:\r\n+OK=STR,heart beat msg\r\n

set up:

Send: AT+HEARTINFO=STR,EBTYE HEART TEST\r\n

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

1.20. Query/Set Short Connection Time

Command	AT+SHORTM
Function	Query and set short connection time
send (query)	AT+SHORTM<CR><LF>
return (query)	<CR><LF>+OK=<Time><CR><LF>
send (setup)	AT+SHORTM=<Time><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Time: Limit 2-255s, 0 is off;

【Example】

Inquire:

Send: AT+SHORTM\r\n

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

set up:

Send: AT+SHORTM=5\r\n

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

1.21. 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 is off)
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Time: Limit 60-65535s, 0 is off;

【Example】

Inquire:

Send: AT+TMORST\r\n

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

set up:

Send: AT+SHORTM=350\r\n

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

Query/set the time and times of disconnection and reconnection

Command	AT+TMOLINK
Function	Query and set the time and times of disconnection and reconnection
send (query)	AT+TMOLINK<CR><LF>
return (query)	<CR><LF>+OK=<Times, Num><CR><LF>
send (setup)	AT+TMOLINK=<Times, Num><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Times (disconnection and reconnection time): limit 5-255, 0-4 is closed; Num (times of disconnection and reconnection): limit 1-60 times;

【Example】

Inquire:

Send: AT+TMOLINK\r\n

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

set up:

Send: AT+TMOLINK=10,10\r\n

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

1.22. Web configuration port

Command	AT+WEBCFGPORT
Function	Query and set web configuration port
send (query)	AT+WEBCFGPORT<CR><LF>
return (query)	<CR><LF>+OK=<PORT><CR><LF>
send (setup)	AT+TMOLINK=<PORT><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	PORT: 2-65535

【Example】

Inquire:

Send: AT+WEBCFGPORT\r\n

Received:\r\n+OK=80\r\n

set up:

Send: AT+WEBCFGPORT=80\r\n

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

"Modbus Function" AT Command Set

1.23. Summary of "Modbus Function" Commands

Command	Description
AT+MODWKMOD	Modbus Mode
AT+MODPTCL	Protocol conversion
AT+MODGTWYTM	Storage Gateway Instruction Storage Time and Query Interval
AT+MODCMDEDIT	Modbus RTUInstruction Prestore

1.24. Query Modbus working mode and command timeout time

Command	AT+MODWKMOD
Function	Query and set Modbus working mode
Send(inquiry)	AT+MODWKMOD<CR><LF>
Back(inquiry)	<CR><LF>+OK=<Mode><Timeout><CR><LF>
Remark	Mode: NONE (disables MODBUS) SIMPL (Simple Protocol Conversion) MULIT (Multi-Master 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

1.25. Enable Modbus TCP to Modbus RTU protocol conversion

Command	AT+MODPTCL
Function	Query and set protocol conversion (Modbus TCP<=>Modbus RTU)
Send(inquiry)	AT+MODPTCL<CR><LF>
Back(inquiry)	<CR><LF>+OK=<Mode><CR><LF>
Remark	Mode: ON (enable protocol conversion) OFF (disables 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

1.26. 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(inquiry)	AT+MODGTWYTM<CR><LF>
Back(inquiry)	<CR><LF>+OK=<Time1><Time2><CR><LF>
Remark	Time1: Instruction storage time (1-255 seconds) Time2: Automatic query interval time (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

1.27. Modbus configuration gateway pre-stored instruction query and editing

Command	AT+MODCMDEDIT
Function	Modbus Configuration gateway pre-stored instruction query and editing
Send(inquiry)	AT+MODCMDEDIT<CR><LF>
Back(inquiry)	<CR><LF>+OK=<Mode><CMD><CR><LF>
Remark	Mode: ADD add command; DEL delete instruction; CLR clear command; CMD: Modbus command (only supports standard Modbus RTU command, no need to fill in the verification, only the function code of read command 01, 02, 03, 04 can be configured), cannot store the same command and return +ERR=-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+MODCMEDEDIT=DEL,0103000A0003\r\n(Delete command)

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

Send: AT+MODCMEDEDIT=CLR,0103000A0003\r\n(Clear command)

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

2. "IoT" AT Command Set

2.1. Summary of "IoT" Commands

Command	description
AT+HTPREQMODE	HTTP request method
AT+HTPURL	HTTP URL path
AT+HTPHEAD	HTTP headers
AT+MQTTCLOUD	MQTT platform
AT+MQTKPALIVE	MQTT heartbeat keep-alive period
AT+MQTDEVID	MQTT Client ID
AT+MQTUSER	MQTT User Name
AT+MQTPASS	MQTT Password
AT+MQTTPRDKEY	Alibaba Cloud Product Key
AT+MQTSUB	MQTT Subscribe to topics
AT+MQTPUB	MQTT Post topic

MQTT and HTTP target IP or domain name configuration

Refer to "Query/Set the Working Mode of the Machine and the Network Parameters of the Target Device".

Set the MQTT mode and target parameters:

Send: AT+SOCK=MQTTC, mqtt.heclouds.com,6002\r\n

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

Set the MQTT mode and target parameters:

Send: AT+SOCK=HTTTPC,www.baidu.com,80\r\n

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

Query/Set HTTP Request Method

Command	AT+HTPREQMODE
Function	Query and set the HTTP client mode request method
send (query)	AT+HTPREQMODE<CR><LF>

return (query)	<CR><LF>+OK=<Method><CR><LF>
send (setup)	AT+HTPREQMODE=<Method><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Method: GET\POST

【Example】

Inquire:

Send: AT+HTPREQMODE\r\n

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

set up:

Send: AT+HTPREQMODE=POST\r\n

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

Query/Set HTTP URL Path

Command	AT+HTPURL
Function	Query, set HTTP URL path
send (query)	AT+HTPURL<CR><LF>
return (query)	<CR><LF>+OK=<Path><CR><LF>
send (setup)	AT+HTPURL=<Path><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Path: HTTP request URL resource address (length limit 0-128 characters)

【Example】

Inquire:

Send: AT+HTPURL\r\n

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

set up:

Send: AT+HTPURL=/view/ed7e65a90408763231126edb6f1aff00bfd57061.html\r\n

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

2.2. Query/Set HTTP header

Command	AT+HTPHEAD
---------	------------

Function	Query and set HTTP headers
send (query)	AT+HTPHEAD<CR><LF>
return (query)	<CR><LF>+OK=<Para>,<Head><CR><LF>
send (setup)	AT+HTPHEAD=<Para>,<Head><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Para (HTTP returns serial port data with header): DEL: without header; ADD: with Baotou; Head (HTTP request header): The length is limited to 128 characters;

【Example】

Inquire:

Send: AT+HTPHEAD\r\n

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

set up:

Send: AT+HTPHEAD=ADD, Host:www.ebyte.com\r\n

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

2.3. Query/Set MQTT Target Platform

Command	AT+MQTTCLOUD
Function	Query and set the MQTT target platform
send (query)	AT+MQTTCLOUD<CR><LF>
return (query)	<CR><LF>+OK=<Server><CR><LF>
send (setup)	AT+MQTTCLOUD=<Server><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Server (MQTT target platform): STANDARD (MQTT3.1.1 standard protocol server) ONENET (OneNET-MQTT server) ALI (Alibaba Cloud MQTT Server) BAIDU (Baidu Cloud MQTT Server) HUAWEI (Huawei Cloud MQTT Server)

【Example】

Inquire:

Send: AT+MQTTCLOUD\r\n
 Received:\r\n+OK=STANDARD\r\n
 set up:
 Send: AT+MQTTCLOUD=BAIDU\r\n
 Received:\r\n+OK\r\n

2.4. Query/Set MQTT Keep-Alive Heartbeat Packet Sending Period

Command	AT+MQTKPALIVE
Function	Query and set the time period of MQTT keep-alive heartbeat packets
send (query)	AT+MQTKPALIVE<CR><LF>
return (query)	<CR><LF>+OK=<Time><CR><LF>
send (setup)	AT+MQTKPALIVE=<Time><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Time: MQTT keep-alive heartbeat time (limit 1-255 seconds, default 60s, modification is not recommended);

【Example】

Inquire:
 Send: AT+MQTKPALIVE\r\n
 Received:\r\n+OK=60\r\n
 set up:
 Send: AT+MQTKPALIVE=30\r\n
 Received:\r\n+OK\r\n

Query/Set MQTT Device Name (Client ID)

Command	AT+MQTDEVID
Function	Query and set the MQTT device name (Client ID)
send (query)	AT+MQTDEVID<CR><LF>
return (query)	<CR><LF>+OK=<Client ID><CR><LF>
send (setup)	AT+MQTDEVID=<Client ID><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Client ID: MQTT device name (Client ID) is limited to 128 characters

	in length;
--	------------

【Example】

Inquire:

Send: AT+MQTDEVID\r\n

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

set up:

Send: AT+MQTDEVID=6164028686b027ddb5176_NA111-TEST\r\n

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

2.5. Query/Set MQTT User Name (User Name/Device Name)

Command	AT+MQTUSER
Function	Query and set MQTT username (User Name/ Device Name)
send (query)	AT+MQTUSER<CR><LF>
return (query)	<CR><LF>+OK=<User Name><CR><LF>
send (setup)	AT+MQTUSER=<User Name><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	User Name: MQTT product ID (User Name/ device name) has a limited length of 128 characters;

【Example】

Inquire:

Send: AT+MQTUSER\r\n

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

set up:

Send: AT+MQTUSER=12345678&a1Ofdo510\r\n

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

2.6. Query/set MQTT product password (MQTT password/Device Secret)

Command	AT+MQTPASS
Function	Query and set MQTT login password (MQTT Password/Device Secret)
send (query)	AT+MQTPASS<CR><LF>
return	<CR><LF>+OK=<Password><CR><LF>

(query)	
send (setup)	AT+MQTPASS=<Password><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Password: MQTT login password (MQTT Password/Device Secret) has a length limit of 128 characters;

【Example】

Inquire:

Send: AT+MQTPASS\r\n

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

set up:

Send: AT+MQTPASS=87654321\r\n

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

2.7. Query/Set the Product Key of Alibaba Cloud MQTT

Command	AT+MQTTPRDKEY
Function	Query and set the Product Key of Alibaba Cloud MQTT
send (query)	AT+MQTTPRDKEY<CR><LF>
return (query)	<CR><LF>+OK=<Product Key><CR><LF>
send (setup)	AT+MQTTPRDKEY=<Product Key><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Product Key: Product Key of Alibaba Cloud (limited to 64 characters)

【Example】

Inquire:

Send: AT+MQTTPRDKEY\r\n

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

set up:

Send: AT+MQTTPRDKEY=a1HEeOIqVHU\r\n

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

2.8. Query/Set MQTT Subscription Topic

Command	AT+MQTSUB
Function	Query and set MQTT subscription topic
send (query)	AT+MQTSUB<CR><LF>
return (query)	<CR><LF>+OK=<Qos>,<Topic><CR><LF>
send (setup)	AT+MQTSUB=<Qos>,<Topic><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Qos: only supports level 0, 1; Topic: MQTT subscription topic (limited to 128 characters in length)

【Example】

Inquire:

Send: AT+MQTSUB\r\n

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

set up:

Send: AT+MQTSUB=0,/ggip6zWo8of/NA111-TEST/user/SUB\r\n

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

Query/Set MQTT Publishing Topic

Command	AT+MQTPUB
Function	Query and set MQTT publishing topic
send (query)	AT+MQTPUB<CR><LF>
return (query)	<CR><LF>+OK=<Qos>,<Topic><CR><LF>
send (setup)	AT+MQTPUB=<Qos>,<Topic><CR><LF>
return (setup)	<CR><LF>+OK<CR><LF>
Remark	Qos: only supports level 0, 1; Topic: MQTT publish topic (limited to 128 characters in length)

【Example】

Inquire:

Send: AT+MQTPUB\r\n

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

set up:

Send: AT+MQTPUB= 0,/ggip6zWo8of/NA111-TEST/user/PUB\r\n

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

3. AT Configuration Examples

3.1. Example of connecting to a 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 (AT) within 3S

RECV(+OK=AT enable)

SEND (AT+RESTORE)

RECV(+OK)

The above steps can use the hardware to restore the factory settings.

Step 1: Enter AT configuration mode;

SEND(+++)

SEND (AT) within 3S

RECV(+OK=AT enable)

Step 2: Enable dynamic IP, if you configure the corresponding IP for the local area network MQTT server, use dynamic IP 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 the MQTT server address and port;

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

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

Step 4: Select the MQTT platform;

SEND(AT+MQTTTCLOUD=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)
RECV(+OK)
Step 9: Configure the topic used for publishing (Topic);
SEND(AT+MQTPUB=0,EBYTE_TEST)
RECV(+OK)
Step 10: Restart the device;
SEND(AT+REBT)
RECV(+OK)
```

3.2. Example of connecting to Alibaba Cloud MQTT server

```
{
  "ProductKey": "a1HEeOIqVHU",
  "DeviceName": "E_DEV01",
  "DeviceSecret": "843ff9caab16d5cd4ebba067a3fa97f3"
}
"MQTT Server": "a1HEeOIqVHU.iot-as-mqtt.cn-shanghai.aliyuncs.com"
"MQTT Port": "1883"
```

Restore factory settings before configuration to avoid enabling unused functions.

```
SEND(+++)
SEND (AT) within 3S
RECV(+OK=AT enable)
SEND (AT+RESTORE)
RECV(+OK)
```

The above steps can use the hardware to restore the factory settings.

```
Step 1: Enter AT configuration mode;
SEND(+++)
SEND (AT) within 3S
RECV(+OK=AT enable)
Step 2: Enable dynamic IP;
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 the MQTT server address and port;
SEND(AT+SOCK=MQTTC,a1HEeOIqVHU.iot-as-mqtt.cn-shanghai.aliyuncs.com,1883)
RECV(+OK=And local port has been set to 0)
Step 4: Select the MQTT platform;
SEND(AT+MQTTCLOUD=ALI)
RECV(+OK)
Step 5: Configure the Client id of the device;
SEND(AT+MQTDEVID=E_DEV01)
```

RCV(+OK)

Step 6: Configure the device name of the device;

SEND(AT+MQTUSER=E_DEV01)

RCV(+OK)

Step 7: Configure the DeviceSecret of the device;

SEND(AT+MQTPASS=843ff9caab16d5cd4ebba067a3fa97f3)

RCV(+OK)

Step 8: Configure the ProductKey of the device;

SEND(AT+MQTTPRDKEY=a1HEeOIqVHU)

RCV(+OK)

Step 9: Subscribe to the corresponding topic (Topic);

SEND(AT+MQTSUB=0,/a1HEeOIqVHU/E_DEV01/user/Test)

RCV(+OK)

Step 10: Configure the topic used for publishing (Topic);

SEND(AT+MQTPUB=0,/a1HEeOIqVHU/E_DEV01/user/Test)

RCV(+OK)

Step 11: Restart the device

SEND(AT+REBT)

RCV(+OK)

4. Revise history

Version	Revision date	Revision Notes	Maintenance man
1.0	2022-02-16	initial version	LC

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