E103-W03 AT Command Manual



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1. AT Command

1、The relevant parameters of this module are changed based on the AT instruction, and the AT instruction takes effect after power down and reboot after successful modification of parameters, see the AT instruction table for details.

2、All AT instructions are input in the form of strings, and all AT instructions are input without carriage return line feed.

3、Use +++ to enter AT mode in any case, and print "enter AT mode \r\n" on the serial port after entering AT mode.

4、Use AT+EXIT to exit after entering AT mode, and print "break AT mode\r\n" on the serial port after exiting AT mode.

Error code table.

Error Code	Description
-1	Command error, command does not exist
-2	Parameter range error
-3	Station manual connection failed
-4	Failed to read MAC address
-5	This mode does not support this operation
-30	Failed to save parameters

Default Parameters

Parameter Category	Parameter Name	Parameter Value	Related Instructions
Serial port	Baud Rate	115200	AT+UART
	Digit	8	
	Stop bits	1	
	Parity check	None	
	Serial timeout	40（ms）	
	Serial frame length	1000	
RF parameters	Operating Frequency	2.4G	AT+RADIO
	Channel	1	
	Transmit power level	0	
	CountryCode	CN	
AP Role SSID parameters	SSID	E103-W03	AT+SSID
	Whether to hide SSID	0（None）	
	Encryption type	2（WPA2）	
	Password	12345678	
Working mode	Job Role	1	AT+MODE
	Transfer Mode	1	
	Service Mode	1	
Network IP address	IP Address	192.168.1.1	AT+NETIP
	Subnet Mask	255.255.255.0	
	Gateway Address	192.168.1.1	
	Server Address	192.168.1.1	
P2P connection	P2P scan gap	20	AT+P2PDEVINFO
	P2P Role	0（client）	
	P2P local name	E103-W03WiFiDirectClient	

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parameters	P2P target name		E103-W03WiFiDirectGo	
P2P socket	P2P port		4001	AT+P2PSOCKET
	P2P address		192.168.1.1	
STA connection parameters	Target SSID		E103-W03	AT+STACON
	Encryption Type		2	
	Password		ebyteW03	
	Connection Type		1	AT+CONTYPE
Local socket parameters	Local Port		4001	AT+SVRPORTIP
	Local IP		192.168.1.1	
Remote socket parameters	Socket1	Port	4001	AT+SOCKET
		IP	192.168.1.2	
	Socket2	Port	4002	
		IP	192.168.1.2	
	Socket3	Port	4003	
		IP	192.168.1.2	
	Socket4	Port	4004	
		IP	192.168.1.2	
Heartbeat parameters	4 way sockets are the same	Heartbeat Type	0（Close）	AT+HEARTBT
		Heartbeat Timeout	5（Unit: second）	
		Heartbeat Data Type	1（String）	
		Heartbeat Data	CDEBYTE-E103-W03-STRHT	
Registration Package Parameters	4 way sockets are the same	Registration Package Type	0（Close）	AT+REGISTER
		Registration Package Data Type	1（String）	
		Registration Package Data	CDEBYTE-REGISTER-PACK-STR	
NTP Time	NTP Time Zone Offset		480 (unit: minutes) Beijing time	AT+NTPTIME
Modbus	Modbus enable		0（CloseModbus）	AT+MODBUS
Static IP	IP Address		192.168.1.2	AT+IPSTATIC
	Subnet Mask		255.255.255.0	
	Gateway Address		192.168.1.1	
	Server Address		192.168.1.1	

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1.1 AT+UART Configuration, reading serial port parameters

Command	Answer		Parameter
Enquiry：AT+UART?	AT+UART=P1,P2,P3,P4,P5,P6		P1:Baud rate, P2:Data bits, P3:Stop bits, P4:Checksum bits, P5:Serial receive timeout, P6:Frame length
Setting：AT+UART=115200,8,1,0,40,1000	Success	AT+UART=115200,8,1,0,40,1000	Return the set value
	Failure	ERR=x	x:Error Code

Range of parameters.

Baud rate：P1	Data bits：P2	Stop bits：P3	Check digit：P4	Serial port timeout：P5	Frame length：P6
1200,2400,4800,9600,14400,19200, 28800,38400,57600,76800,115200 230400,250000,460800,921600 1382400, 2000000,3000000	7 8	1：Stop bits1 2：Stop bits2	0：no checksum 1：Odd check 3：Even check	Scope [1,65535] Unit: milliseconds	[20,1000]

Reboot effective

Note: When using 3M high speed baud rate, you need to pay attention to: 1). Try to connect the module and PC's USB3.0 and above ports directly, otherwise it may lead to packet loss; 2). The serial port software used must be to support the 3M baud rate; 3). The serial chip used must support up to 3M baud rate, CP2102 series is recommended (the company's test backplane on the use of this)

1.2 AT+SSID Configure, read SSID information for AP mode

Command	Responses		Parameters
Inquiry：AT+SSID?	AT+SSID=P1,P2,P3,P4		P1:whether to hide the SSID, P2:SSID name, P3:encryption type, P4:password
Settings：AT+SSID=0,E103-W03-TEST,2,12345678	Success	AT+SSID=0,E103-W03-TEST,2,12345678 Return Settings value	
	Failure	ERR=x x:Error Code	

Parameters Scope：

P1: whether to hide SSID	P2：SSID	P3：Encryption Type	P4：Password
0:Close hidden, 1:Enable hidden	Strings not larger than 32 bytes	0：open，1：WEP，2：WPA2	String of [8,32] bytes

Note: When the encryption type is open, the password can be empty and not Settings.

Restart to take effect

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1.3 AT+MODE configuration, reading working mode

The model contains roles, transport modes, and web service modes.

Command	Response		Parameters
Inquiry：AT+MODE?	AT+MODE=P1,P2,P3		P1:Role, P2:Transport mode, P3:Service mode
Settings：AT+MODE=1,1,1	Success	AT+MODE=1,1,1	Return Settings value
	Failure	ERR=x	x:Error Code

Parameters Scope：

P1	P2	P3
1:AP Mode 2:STA Mode 3:WiFiDirect	1: Transparent transmission 2: Protocol transmission	1:TCP server 2:TCP client 3:UDP 4:MQTT 5:HTTP client 6:WebSocket

Note: When Settings is WiFiDirect mode (P2P), P2,P3Parameters will not take effect at the moment, but will take effect when switching back to AP or STA.

Restart to take effect

1.4 AT+RADIO configuration, read RF Parameters (frequency, channel, power)

Command	Response		Parameters Description
Inquiry：AT+RADIO?	AT+RADIO=P1,P2		P1:2.4G channel, P2:power
Settings：AT+RADIO=1,0	Success	AT+RADIO=1, 0	Return Settings value
	Failure	ERR=x	x:Error Code

Parameters Scope：

P1	P2
Channel number at 2.4G frequency（1~13）	Power Rating：0~15

Description.

- 1、As the channel bands of WiFi are different in different countries and regions, this module only supports the bands in China region at present. The 2.4G band supported in China [1,13].
- 2. 0~15 refers to the power level, not the power, 0 indicates the maximum power level, the maximum power 18dBm; 15 indicates the minimum power level, the minimum power 0dBm, [0,15] in decreasing order. Restart effective

1.5 AT+MQTT configuration mqtt

Command	response	Parameter Description
Inquiry：AT+MQTT?	AT+MQTT=P1,P2,P3,P4,P5,P6, P7,P8,P9, P10,P11	P1: Platform selection (Alibaba Cloud-0, Baidu Cloud-1, onenet-2) P2: Alibaba Cloud - Product Key. Baidu Cloud - Device name.password.

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			P3: Alibaba Cloud-device name. Baidu Cloud - Username. username. P4: Alibaba Cloud-client_ID. Baidu Cloud - Password. client_ID P5: Alibaba Cloud - Device Key. Baidu Cloud - None. Onenet - none. P6: Address. P7: Port. P8: Subscribe. P9: Subscribe to QOS. P10: Post. P11: Release QOS.
Settings: AT+MQTT=2,561986583,288258,ebyte12345,mqtt.heclouds.com,6002,get,0,get,0	Success	AT+MQTT=2,561986583,288258,ebyte12345,mqtt.heclouds.com,6002,get,0,get,0 Return Settings value	
	Failure	ERR=x Code	x:Error

Parameters Scope:

P1:	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11
Ali: 0 Baidu: 1 onenet: 2	Ali cloud:Product key Baidu cloud:Device name Onenet:Device ID	Alibaba Cloud: Device Name Baidu Cloud: Username Onenet: Product ID	AliCloud: cliend_ID. Baidu cloud: password. Onenet: power identification information (device name)	Alibaba Cloud: Device Key Baidu Cloud: None Onenet: none	address	port	Subscribe to topics	Subscribe to QOS	Post topic	Post QOS

Instructions.

1. The maximum length of AliCloud product key is 18 bytes, the maximum length of device name is 20 bytes, the maximum length of cliend_id is 20 bytes, and the maximum length of device key is 40 bytes.

2、Baidu cloud device name length max 20 bytes, user name length max 30 bytes, password length max 20 bytes. The authentication method selects secret key authentication.

3、Onenet device ID length maximum 10 bytes, product ID length maximum 10 bytes, right identification information length maximum 20 bytes.

4、Maximum length of address is 65 bytes. The maximum length of subscription is 60 bytes. The maximum length of publication is 60 bytes. Subscribe QOS and publish QOS can only be 0,1,2.

Restart is effective

1.6 AT+HTTPCLIENT configure HTTPCLIENT

Command	response	Parameter Description

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Inquiry : AT+HTTPCLIENT?	AT+HTTPCLIENT=P1,P2,P3, P4,P5,P6		P1: IP address, P2: port number. P3: Request method. P4: Output method P5: URL. P6: Customize.
Settings: AT+HTTPCLIENT=192.168.4.100,8886,0,1,/,Connection: keep-alive	Success	AT+HTTPCLIENT=192.168.4.100,8886,0,1,/,Connection: keep-alive Return Settings value	
	Failure	ERR=x Code	x:Error

Parameters Scope:

Description.

1, request mode 0-get, 1-post. output mode 0-valid data output, 1-all output.

2, P4 output mode, it is recommended to use all output mode, and then the user to parse the content. Because the network environment is limited, the reception may be sticky packet situation, in the absence of specified separator conditions, the module has no way to perfectly sub-packet, there is a risk of causing data abnormalities. If you must output only valid content, you can specify the delimiter condition for customization.

3、After restarting the connection successfully, the contents of the serial input will be automatically received after the URL. For example, if you want to access the file /test.txt, enter "AT+HTTPCLIENT=192.168.4.100,8886,0,1,/,Connection:keep-alive", then restart, and after successful connection, enter "test.txt" can be used.

Reboot to take effect

1.7 AT+WEBSOCKET Configuring Websocket

Command	response		Parameter Description
Inquiry : AT+WEBSOCKET?	AT+WEBSOCKET=P1,P2,P3		P1:IP address, P2:Port number. p3: Origin
Settings: AT+WEBSOCKET=192.168.4.100,8886,http://192.168.4.100	Success	AT+WEBSOCKET=192.168.4.100,8886,http://192.168.4.100 Return Settings value	
	Failure	ERR=x	x:Error Code

Reboot to take effect

1.8 AT+P2PDEVINFO Configure and read WiFi-Direct (P2P) parameters

Command	response		Parameter Description
Inquiry: AT+P2PDEVINFO?	AT+P2PDEVINFO =P1,P2,P3,P4		P1:scan time, P2:current role, P3: local device name, P4:peer device name
Settings: AT+P2PDEVINFO=30,1, E103-W03WiFiDirectGo, E103-W03WiFiDirectClient	Success	AT+P2PDEVINFO=30,1,E103-W03WiFiDirectGo,E103-W03WiFiDirectClient Return Settings value	
	Failure	ERR=x x:Error Code	

Parameters Scope:

P1	P2	P3	P4

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Scan gap in WiFi-Direct mode: 20~1000(s)	0：client 1：GroupOwner	Local device name: a string less than 32 bytes	Device name on the other side: a string of less than 32 bytes

Reboot to take effect

1.9 AT+P2PSOCKET configuration, read WiFi-Direct (P2P) port, IP address

Command	response		Parameter Description
Inquiry：AT+P2PSOCKET?	AT+P2PSOCKET=P1,P2		P1:port,P2:IP address
Settings： AT+P2PSOCKET=4001,192.168.1.1	Success	Return Settings value	
	Failure	ERR=x x:Error Code	

Parameters Scope：

P1：Port	P2：IP Address
[0,65535]	[0,254]

Description:

1、There are two roles in WiFi-Direct mode, Client and GroupOwner. changing port number is supported under GroupOwner; changing port and IP address is supported under Client role.

2. The port and IP address of the peer device are set in Client mode, i.e. remote port and IP; the local port is set in GroupOwner.

Reconnection takes effect

1.10 AT+NETIP configuration, reading network IP address

Command	response	Parameter Description
Inquiry：AT+NETIP?	AT+NETIP=P1,P2,P3,P4	P1:IP address, P2:subnet mask, P3:gateway address, P4:DNS server address
Settings： AT+NETIP=192.168.1.111,255.255.255.0,192.168.1.31,192.168.1.31	Success	Return Settings value
	Failure	ERR=x x:Error Code

Parameters Scope:

P1	P2	P3	P4
0~255			

Reboot to take effect

1.11 AT+STACON configuration, reading STA connection parameters

Command	response	Parameter Description
Inquiry：AT+STACON?	AT+STACON=P1,P2,P3	P1:target SSID name, P2:encryption type, P3:password

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Settings：AT+STACON=ebyteW03,2,12345678	Success	Return Settings value
	Failure	ERR=x x:Error Code

Parameters Scope：

P1	P2	P3
Target SSID, less than 32 bytes string	Encryption type: 0:open, 1:WEP, 2:WPA2	Password, less than 32 bytes string

Description.

1. P2 encryption type, if it is open type, then P3 password can be empty and not set

Reconnect effective

1.12 AT+CONTYPE Set the connection type

Command	response		Parameter Description
Inquiry：AT+CONTYPE?	AT+CONTYPE=P1		P1:Connection Type。
Settings：AT+CONTYPE=P1	Success	AT+CONTYPE=P1 Successful return of the set value	
	Failure	ERR=x x:Error Code	

Note: P1 indicates the connection type. Although this command can be configured in AP mode, it must be in STA (station) mode to take effect.

Parameter range: 1,2,3 only

1: Auto-connect. Automatic connection according to the SSID stored in flash (from AT+STACON command).

2: smartconfig connection. Connect automatically according to the SSID parameter configured by smartconfig.

3: Manual connection. Connects to the specified AP according to the parameters of the command: AT+HDCONTO=P1,P2,P3.

Reboot to take effect

1.13 AT+HDCONTO connect to AP manually

Command	response		Parameter Description
AT+HDCONTO=P1,P2,P3	Success	Not responding	P1: SSID name, P2: encryption type, P3: password
	Failure	ERR=x x:Error Code	

Parameters Scope：

P1	P2	P3
SSID name (not larger than 32 bytes)	Encryption type. 0:open,1:WEB,2:WPA2	Password (not larger than 32 bytes)

Description:

1. The success and failure here only indicate whether the configuration parameters conform to the connection rules, and do not mean that the connection is successful. Please judge whether the connection is successful in the end according to the indicated pins. The parameters here are not saved to flash, and will be invalid after power off. This command only

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applies to STA mode.

For example, the connection Wifi name is: ebyteW03, the password is: 12345678, and the encryption method is: WPA2. Then enter the command: AT+HDCONTO=ebyteW03,2,12345678

2. If the target SSID is open, P3 can be empty.

3. This command only supports the use of STA role

Effective immediately

1.14 AT+DISCON disconnect

Command	response		Parameter Description
AT+DISCON	Success	disconnect	None
	Failure	ERR=x x:Error Code	

Description:

1. Returning disconnect when this command is successful only means that the module has received the command, and whether the connection is finally disconnected depends on the W_LINK indication pin.

2. This command only supports the use of the STA role

Effective immediately

1.15 AT+SOCKET configure, read SOCKET port, IPv4 address:

Command	response		Parameter Description
Inquiry：AT+SOCKET?P1	AT+SOCKET=P1,P2,P3		P1: socket label, P2: port, P3: IP address
Settings： AT+SOCKET=0,4001,192.168.1.1	Success	Return the set value	
	Failure	ERR=x x:error code	

Parameters Scope：

P1:socket Marking	P2:Port number	P3:IP address
[0,3]	[0,65535]	[0,255]

Description: 1、This instruction is to configure the remote port and IP address of the protocol transmission, a total of 4 way ports and addresses, which can be set separately.

2、When the transmission mode is pass-through, the first channel parameter is used by default.

Restart to take effect

1.16 AT+SVRPORTIP configure, read local port and IP address

Command	response		Parameter Description
Inquiry：AT+ SVRPORTIP?	AT+ SVRPORTIP =P1,P2		P1:local port,P2:local IP
Settings：AT+ SVRPORTIP=4001	Success	Return the set value	
	Failure	ERR=x x:Error Code	

Description.

1、This instruction is mainly used to query and set the local port number and IP address in TCP serve mode, and query

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and set the local port number and IP address in UDP mode. It should be noted that if no WiFi connection is established in STA mode, the returned IP address is 0, and you need to wait for the connection to be established before you can get the local IP address.

2. After IPv6 is turned on via AT+IPV6=1, the IPv6 address is returned when this command is read. And the semicolon will not be omitted, so that it is convenient for the microcontroller to parse. For example: AT+SVRPORTIP=4001,fe80:0:0:0:4206:a0ff:fea7:8f2c

Reboot to take effect

1.17 AT+HEARTBT Configuration, reading heartbeat packet parameters

Command	response		Parameter Description
Inquiry：AT+HEARTBT?0	AT+HEARTBT=P1,P2,P3,P4,P5		P1:label, P2:heartbeat packet type, P3:heartbeat timeout, P4:heartbeat data type, P5:heartbeat data
Settings：AT+HEARTBT=0,1,5,1, CDEBYTE-E103-W03-STRHT	Success	Successful return of the set value	
	Failure	ERR=x x::Error Code	

Parameters Scope：

P1	P2	P3	P4	P5
socket marker Range [0,3]	Heartbeat packet type. 0: Close heartbeat packet 1: Serial heartbeat 2: Network heartbeat 3: Serial + network heartbeat	Heartbeat timeout time. [0,65535] Unit: second	Heartbeat data types. 1: String 2: HEX	Heartbeat data, no larger than 40 bytes

Description.

1, P1 represents the socket label, which corresponds to the socket ID of the protocol transmission, in the range [0,3]. When it is a pass-through, the heartbeat packet is printed according to the configuration information of the first channel, i.e. the parameter with socket label of 0.

2. If the heartbeat data type is HEX mode, then you need to follow the HEX format rules when setting, i.e. the heartbeat data must consist of 0~F. And the data is in the form of two bits in one and not enough to make up 0 by the bottom bit, for example, if you want to set the heartbeat data to HEX format, then send the command AT+HEARTBT=0,3,5,2,1f2a3b40. Because the fourth bit is 2 means HEX format, so it will be aligned according to: 1f 2a 3b 40.

3. If the serial heartbeat packet is turned on and the transmission mode is protocol transmission, the serial port side will be output according to the protocol transmission format.

Effective immediately

1.18 AT+REGISTER Configure, read registration package parameters

Command	response	Parameter Description
Inquiry：AT+ REGISTER?0	AT+ REGISTER=P1,P2,P3,P4	P1:Label number,P2:Registration

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			package type,P3:Registration package data type,P4:Registration package data
Settings：AT+REGISTER=0,1,2,313233343536373839	Success	Return the set value	
	Failure	Return error code	

Parameters Scope：

P1：Marking	P2：Registration Package Type	P3：Packet Type	P4：Registration Package Data
[0,3]	0: Turn off 1: Send MAC address when connected 2: Append MAC address before each packet of data 3：Send custom data when connecting 4: Append custom data for each packet of data	1: String 2: HEX	Maximum length is 60 bytes

Description.

1, P1 represents the socket marker, which corresponds to the socket ID of the protocol transmission, range [0,3], when it is a pass-through, the registration packet is printed according to the configuration information of the first way, i.e. the parameter with socket marker 0.

2, if the registration packet data type is HEX mode, then you need to follow the HEX format rules when setting, that is, the registration packet data must be composed of 0~F. And the data in accordance with the form of two in one, not enough by the bottom bit to put together the way 0 to it, for example, want to set the heartbeat data for HEX format, then send the command: AT + REGISTER = 0,1,2,1f2a3b40. because the third bit is 2 indicates HEX format, so it will be in accordance with: 1f 2a 3b 40 alignment.

3. If the registration packet type is set to MAC address related (connection sends MAC address and each packet data appends MAC address), parameter P3 packet type will be specified as HEX format and parameter P4 will be specified as MAC address that the module gets from internal.

Effective immediately

1.19 AT+NTPTIME Configure, read NTP time

Command	response		Parameter Description
Inquiry：AT+NTPTIME?	NTP time:Mon Aug 24 11:16:00 2020.Zone=480		
Settings：AT+NTPTIME=Zone	Success	AT+NTPTIME=Zone Value	Zone:Settings
	Failure	ERR=x	x:error code

Instructions.

1. This command is effective only in STA mode and connected to the network.

2. The time is output in the format of: day, month, day, hour, minute, second, year.

3. Zone is the offset based on GMT time, for example, if Beijing time is the time of the eastern eight zones, then Zone=8*60 (minutes).

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4. Settings parameter can only SettingsGMT time offset, the specific value is calculated according to the specific time zone, the unit is minutes.
5.Zone range: [-720,840]
Effective immediately

1.20 AT+MAC Read MAC address

Command	response	Parameter Description
Inquiry：AT+MAC?	AT+MAC=P1	P1：MAC address, in string form

1.21 AT+SMARTCFG smartconfig distribution network

Command	response	Parameter Description
AT+SMARTCFG	Enter SmartConfig	Indicates entry into SmartConfig mode

The module restarts automatically after the distribution is completed. The configuration timeout will also restart. Timeout duration is 180 seconds. Requires router to enable mDNS function.
Effective immediately

1.22 AT+VERSION Read hardware, software to get version number

Command	response	Parameter Description
AT+VERSION	AT+VERSION=HV:p1,SV:p2	P1:hardware version number, P2:software version number

Note: This command cannot Settings, only read parameters

1.23 AT+RESET Reboot module

Command	response	Parameter Description
AT+RESET	RESET	Returning RESET means that the command is executed Success

Explanation: After executing this command, the module will be reset and restarted, the user parameters will not be lost, it is only equivalent to re-powering, the serial port will print the message: RESET before restarting.

1.24 AT+RESTORE parameter restore factory

Command	response	Parameter Description
AT+RESTORE	RESTORE	Returning RESTORE means that the command is executed with Success

Description: After executing this command, the module will be reset and restarted, and the parameters will be reset to their initial values, that is, the parameters configured by the user will be invalidated, and the message: RESTORE will be printed on the serial port before the reset and restart.

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1.25 AT+SLEEPIN to enter hibernation

Command	response	Parameter Description
AT+SLEEPIN	sleep	Go to sleep

Description: When waking up the module, give a rising edge to the WAKEUP pin (GPIO_13), or the serial port receives data, the module will print wakeup on the serial port after waking up.

1.26 AT+IPSTATIC Configure, read static IPv4 addresses

Command	response		Parameter Description
Inquiry：AT+IPSTATIC?	AT+IPSTATIC=p1,p2,p3,p4,p5		p1:enable p2:IP address p3:subnet mask p4:Gateway address p5:Server
Settings： AT+IPSTATIC=p1,p2,p3,p4,p5	Success	Return Settings value	
	Failure	Return error code	

Need to pay attention to.

1, this parameter only takes effect in STA mode, non-STA mode use this command will report an error, do not support this operation.

2, if you turn off the static IP function, in Settings parameters only Settingsp1 can be, p2, p3, p4, p5 parameters are invalid, even Settings this module will not be saved, Inquiry is also the same.

3, IP address must be and the target AP or and the target router in the same network segment, otherwise it will not work because it can not be assigned a legal IP address. For example, the IP address of the target AP is 192.168.1.1, then the Settings static IP must be 192.168.1.x.

Parameters Scope:

p1：Enable	p2：IP Address	p3：subnet mask	p4 ：Gateway Address	p4 ：Server Address
0: Off 1: On	The number of APs in the same network segment as the target is not greater than 255	No greater than 255	No greater than 255	No greater than 255

Restart effective.

1.27 AT+MODBUS configuration, InquiryModbus

Command	response		Parameter Description
Inquiry：AT+MODBUS?	AT+MODBUS=p1		0: Off 1: On
Settings：AT+ MODBUS=p1	Success	Return Settings value	
	Failure	Return error code	

Effective immediately.

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1.28 AT+SCAN Scan for nearby AP

Command	response	Parameter Description
AT+SCAN	Success：+scan:p1,p2,p3,p4 Failure：no ap scan	

Attention.

1, scan nearby AP can only be in STA mode, the connection mode is manual connection, and not established wifi connection to take effect, otherwise it will return ERR = -5, indicating that this operation is not supported in this state.

2, if the scan to the nearby AP will return the following information format.

Fixed head	SSID	MAC(BSSID)	channel	rssi
+scan:	Maximum 32 bytes	17bytes	Maximum 3 bytes	Maximum 3 bytes
+scan:	TEST_ZW	14:AD:CA:AA:91:D6	4	-69

+scan:tenda_TX,B8:3A:08:AC:46:E1,1,-71

Each parameter is separated by a comma ',' and terminated by a carriage return (\r\n), and the MAC address (BSSID) is separated by a semicolon ':'

1, scanning 5G band AP need to enable 5G, otherwise the module can only scan to 2.4G band AP information. 5G and 2.4G differences in the channel, 2.4G channel is [1,13], greater than 13 are 5G channel.

2. The maximum number of APs that can be scanned at a single time is 30.

1.29 AT+IPV6 configuration, reading IPv6 mode

Command	response		Parameter Description
Inquiry：AT+IPV6?	AT+IPV6=p1		0: Off 1: On
Settings：AT+IPV6=p1	Success	Return Settings value	
	Failure	Return error code	

Example: AT+IPV6=1

Reboot to take effect.

Description.

1、After IPv6 is turned on, AT+ SVRPORTIP?returns the IPv6 address.

2、At present, IPv6 is an experimental function, only supporting WIFI in STA mode and IPv6 connection of TCP Server. And Settings static IPv6 address is not supported.

修订历史

Version	Revised date	Revision note	Maintain people
1.0	2022.06.21	The initial version	M.T.
1.1	2023.7.11	Content correction	Hao

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