WIZ-IP75 User Manual

V1.0

Update history

Version	Date	Remarks
V1.0	2025/06/10	First release

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For more information, please visit: https://www.wizse.com/

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1 Introduction

1.1 Overview

The WIZ-IP75 serial-to-Ethernet module supports two data transmission modes: data transmission through transmission and AT commands. It also supports TCP Server, TCP Client, and UDP working modes. The maximum serial port baud rate can reach 460800 bps. A corresponding upper computer configuration software is provided, and it can be easily configured through web pages or AT commands.

The WIZ-IP75 serial-to-Ethernet module adopts the ARM Cortex-M0 core, making network communication faster, more stable and secure. Users can quickly complete the design of hardware circuits just by following the recommended reference design schematics in the manual, which reduces development difficulty and saves development time.

1.1.1 Functional features

The WIZ-IP75 serial port to Ethernet module features the following main functional and characteristics:

- Supports both data transmission mode of data forwarding and AT command
- The baud rate setting range is from 300 bps to 460800 bps, covering 16 commonly used baud rate values
- Supports three working modes: TCP Server, TCP Client and UDP
- The serial port receives a buffer of up to 2048 bytes and the network port receives a buffer of 2048 bytes
- Integrates a complete hardware TCP/IP protocol stack to ensure fast, secure and stable data communication
- Flexible serial port data packet configuration, meeting the diverse packet requirements of users
- Supports the Keep Alive function to ensure the real-time smoothness of the network link
- Support automatic acquisition of IP address via DHCP
- Supports DNS function, meeting the users' demand for enabling communication between devices and servers through domain names
- Supports NetBIOS functionality, facilitating users' easy access to devices by their names
- Supports a connection password verification function to enhance communication security
- Support serial port AT command mode configuration, Web page configuration, and upper computer tool configuration

- Support local firmware upgrade for the host computer

1.1.2 Product features

- 32-bit ARM Cortex-M0 MCU
- Ethernet

  10/100M adaptive Ethernet
- Serial port

  3.3V TTL：TXD、RXD、CTS、RTS、GND
- Serial communication parameters

  Baud rate: 16 commonly used baud rate values ranging from 460bps to 460800bps

  Data bits: 7, 8

  Stop bits: 1, 2

  Parity: None, Even, Odd

  Flow control: None, CTS/RTS
- Input power supply

  WIZ-IP75: DC 3.3V
- Dimensions (Length × Width × Height)

  WIZ-IP75: 32.50×16.50×13.70(mm)
- Operating temperature

  WIZ-IP75: -40℃~ +85℃
- Storage environment

  WIZ-IP75: -40℃~ +95℃, 5 ~ 95% RH

1.1.3 Parameter configuration method

The WIZ-IP75 serial port to Ethernet modules offers three commonly used parameter configuration methods for users to choose from:

- Serial AT command configuration: Users can integrate the WIZ-IP75 into the mainboard of their own embedded products, and the main MCU can configure parameters by sending serial AT commands. Users can also directly configure the module through AT commands via the upper computer serial tool. For details, please refer to Chapter 7 AT Commands.
- Web browser configuration: Users can perform configuration through a web browser on a computer

within the same local area network as the module. For details, please refer to Chapter 8 Web Page Configuration.

- WIZS2E ConfigTool configuration: Users can configure using the WIZS2E ConfigTool on a computer within the same local area network as the module. For details, please refer to Chapter 6 WIZS2E ConfigTool Software Configuration.

1.2 Product specifications

1.2.1 Electrical parameters

The following parameters refer to the values at Temp=25℃.

Voltage and current characteristics

Table 1-1 WIZ-IP75 Electrical characteristics

Symbol	Types	Ratings			
		Min	Typical	Max	Unit
V_{IN}	Module voltage	3.0	3.3	3.6	V
I_{IN}	Module current	49.3	51.9	64.3	mA

Current characteristics

Table 1-2 WIZ-IP75 Current characteristics

Module status	Test value(mA)	Module status	Test value(mA)
Standby	49.3	communication	51.9

1.2.2 Dimensions

If users need to integrate the WIZ-IP75 serial-to-Ethernet module into their main boards or PCBs, they can refer to the following mechanical dimensions. Unit: mm.

Dimension drawing of WIZ-IP75

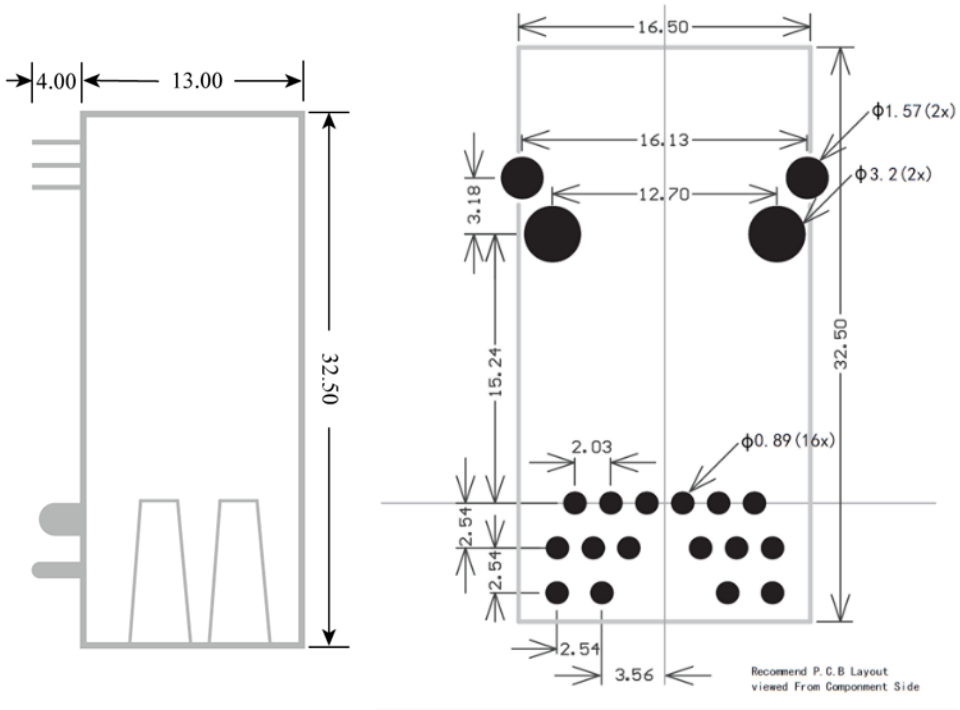


Figure 1-1 Mechanical dimension diagram of WIZ-IP75

1.2.3 Temperature characteristics

Table 1-3 Temperature characteristics

Name	Level	Operating temperature	Storage temperature
WIZ-IP75	Industrial grade	-40℃ ~+85℃	-40℃ ~+95℃

2 Hardware description

2.1 Interface description

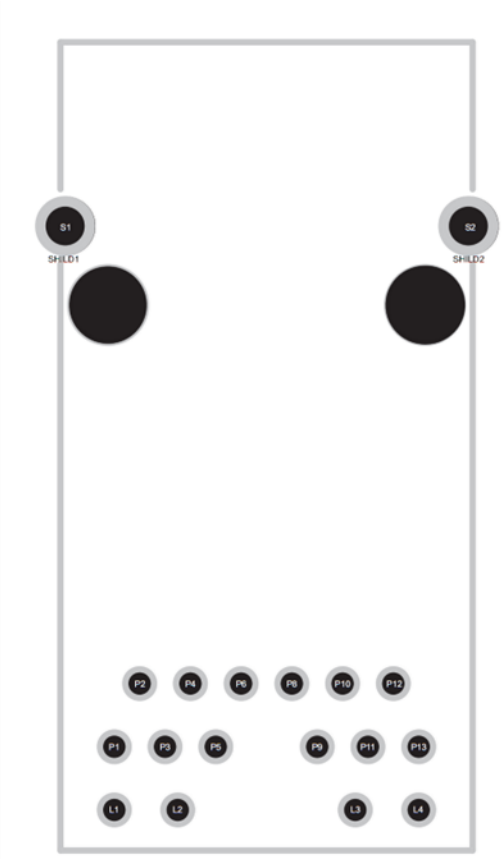


Figure 2-1 WIZ-IP75 pinout diagram

Table 2-1 WIZ-IP75 pin description

Pin Number	Pin Name	Pin Type	Description
P1	ACT	RJ45_LED Control Pin	RJ45 Interface data status LED control
P2	NC	-	-
P3	RXD	Serial Port	3.3V TTL serial port receive pin.
P4	NC	-	-
P5	TXD	Serial Port	3.3V TTL serial port transmit pin.
P6	CTS	Serial Port Flow Control	Serial port flow control CTS signal pin.
P8	RESET	Reset Pin	The entire module is reset when a low - level signal is received.
P9	GND	Power Ground	Module power ground
P10	RTS	Serial Port Flow Control	Serial port flow control CTS signal pin.
P11	VCC	Positive Power Supply Pin	Module power supply positive, default DC 3.3V
P12	NC	-	-
P13	LINK	RJ45_LED Control Pin	RJ45 Interface connection status LED control.
L1	D1-	RJ45_LED	The negative pole of the RJ45 connection status LED is connected to the ACT pin in default.
L2	D1+	RJ45_LED	The positive pole of the RJ45 connection status LED is connected to 3.3V power supply in default.
L3	D2+	RJ45_LED	The positive pole of the RJ45 data status LED is connected to the 3.3V power supply in default.
L4	D2-	RJ45_LED	The negative pole of the RJ45 data status LED is connected to the LINK pin in default.

2.2 Introduction to the Evaluation Board

The WIZ-IP-EVB evaluation board enables users to test and evaluate the serial-to-Ethernet modules of the WIZ-IP32, WIZ-IP75 and WIZ-IP20 models. The interface diagram of the WIZ-IP-EVB is shown in Figure 2-2.

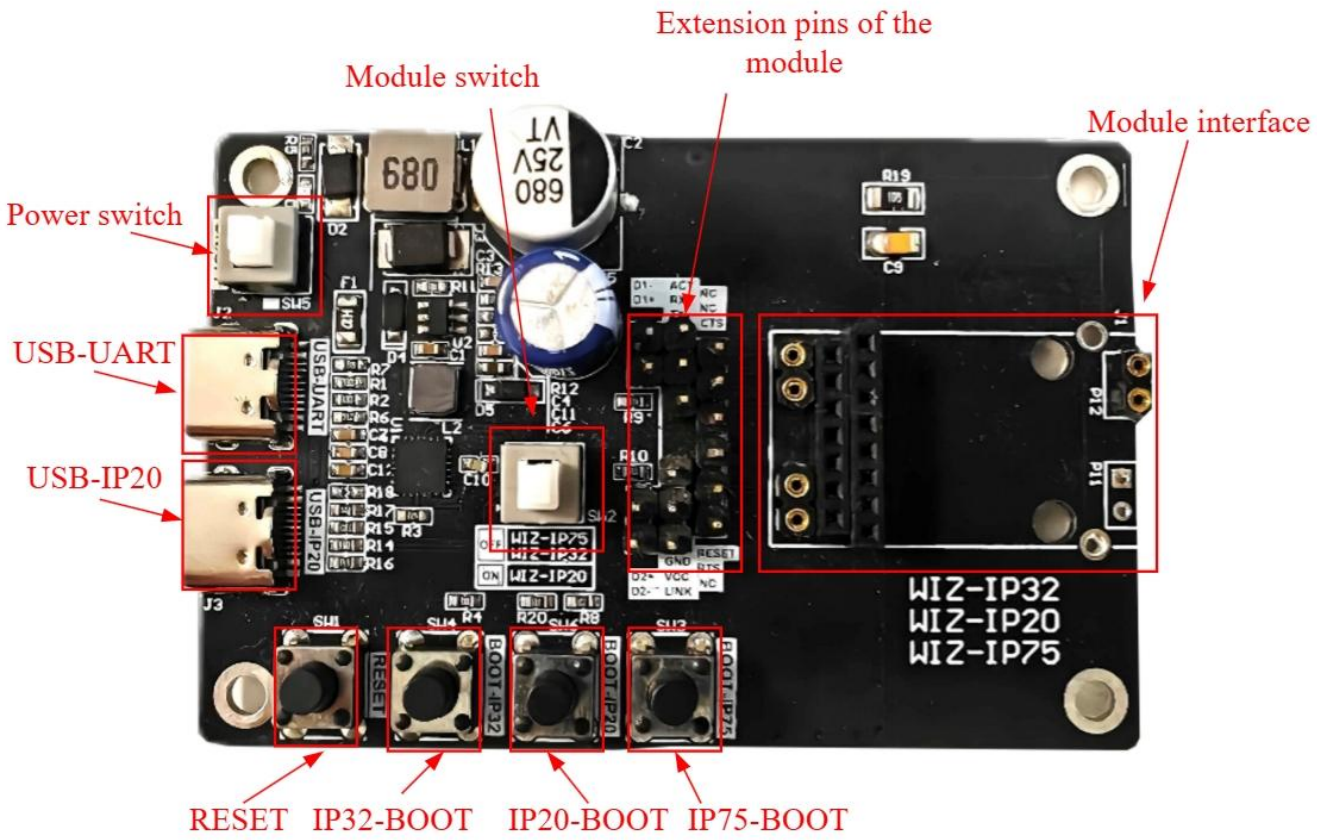


Figure 2-2 WIZ-IP-EVB Evaluation Board Schematic Diagram

- **Power Switch:** Used to control the power on/off of the entire circuit board, determining whether to supply power to the circuit board.
- **USB-UART:** USB to UART interface, providing 5V power supply to the circuit board and modules, enabling data conversion between USB and serial communication interfaces, used for AT command configuration and serial data transmission.
- **USB-IP20:** WIZ-IP20 firmware download serial USB port
- **RESET:** Reset button, when pressed, can make the circuit board or related functional modules restart and return to the initial state.
- **Module Switch:** When the button is pressed, it is configured to use the WIZ-IP20 mode; when released, it is configured to use the WIZ-IP75 or WIZ-IP32 mode.
- **IP32-BOOT:** Controls the startup mode of the hardware WIZ-IP32, used to force the module to enter the boot mode for firmware upgrade, debugging or fault recovery.
- **IP75-BOOT:** Controls the startup mode of the hardware WIZ-IP75, used to force the module to enter the boot mode for firmware upgrade, debugging or fault recovery.
- **IP20-BOOT:** Controls the startup mode of the hardware WIZ-IP20, used to force the module to enter

the boot mode for firmware upgrade, debugging or fault recovery.

2.3 WIZ-IP-EVB schematic diagram reference

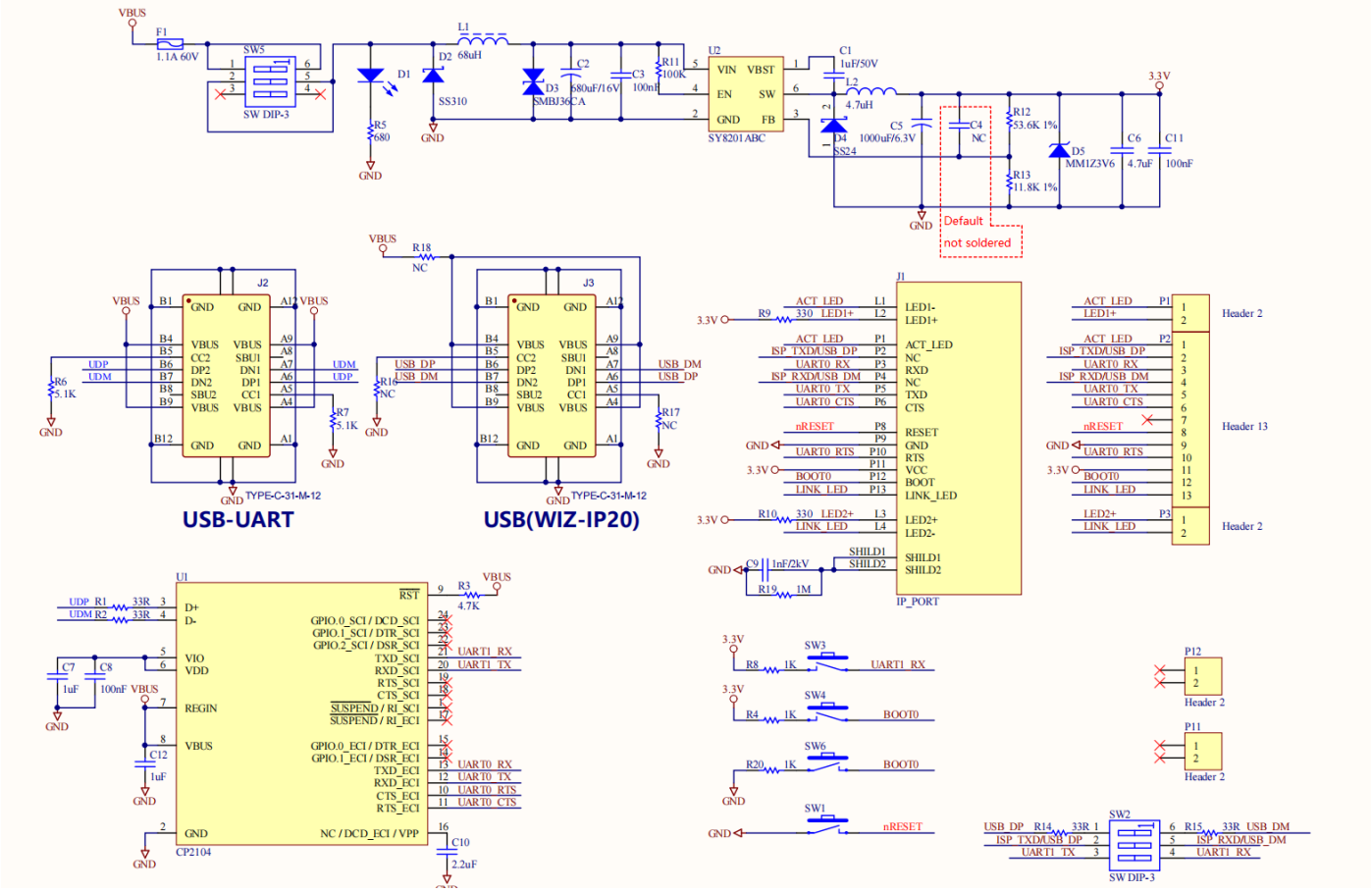


Figure 2-3 WIZ-IP-EVB schematic diagram

2.4 Quick Evaluation Setup Guide

By integrating the WIZ-IP75 serial to Ethernet module, users can quickly upgrade the serial port of their modules to an Ethernet interface. Before doing so, it is recommended that users test and evaluate the WIZ-IP75 serial to Ethernet module through the WIZ-IP-EVB evaluation board.

As shown in the figure below, to test the data conversion from the serial port to Ethernet, it is necessary to install the WIZ-IP75 on the WIZ-IP-EVB first. Then, connect the serial port of the WIZ-IP-EVB to the USB port of the computer via a USB to serial module, and connect the network port of the WIZ-IP-EVB to network modules such as routers or switches. At the same time, the user's computer should also be connected to this local area network. In this way, a simple network environment between the computer and the serial port module is set up. Then, as described in the subsequent chapters, the user's serial port module can realize data communication with the computer through Ethernet, and the WIZ-IP75 acts as a bridge for conversion between the serial port protocol and the Ethernet protocol.

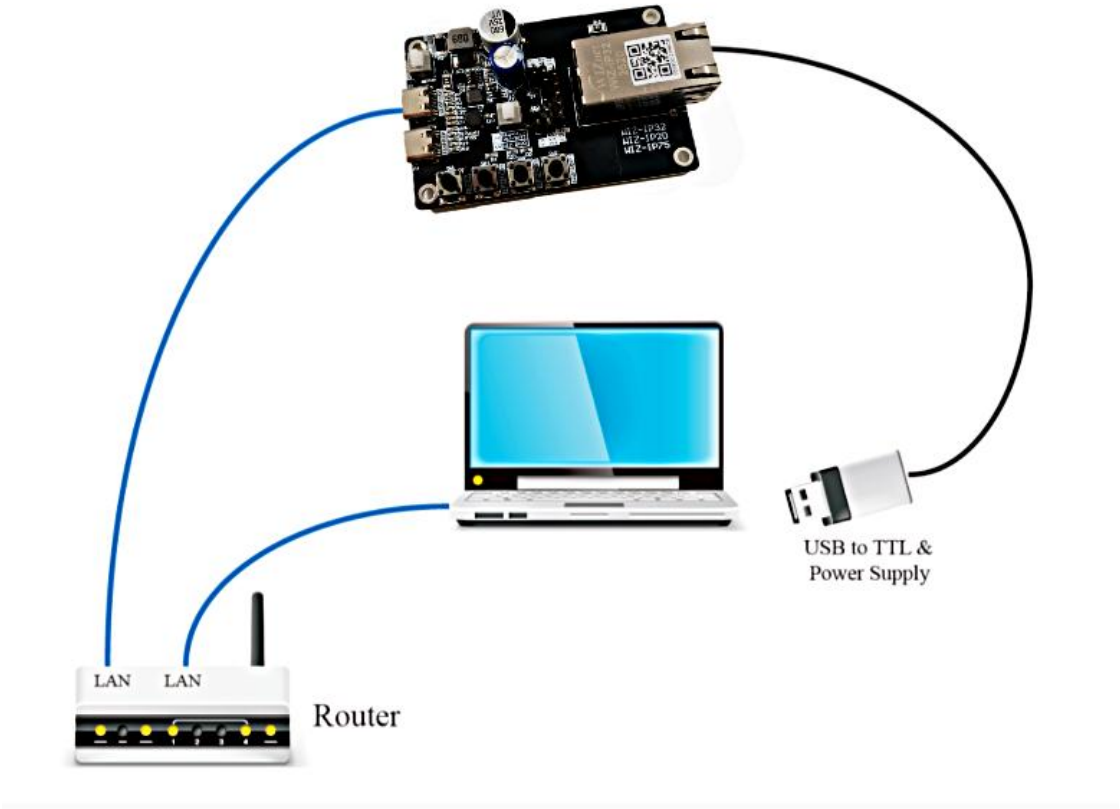


Figure 2-4 WIZ-IP75 wiring diagram

3 Operating modes

WIZ-IP75 serial to Ethernet modules support TCP Server, TCP Client and UDP modes, which will be briefly explained below.

3.1 TCP server mode

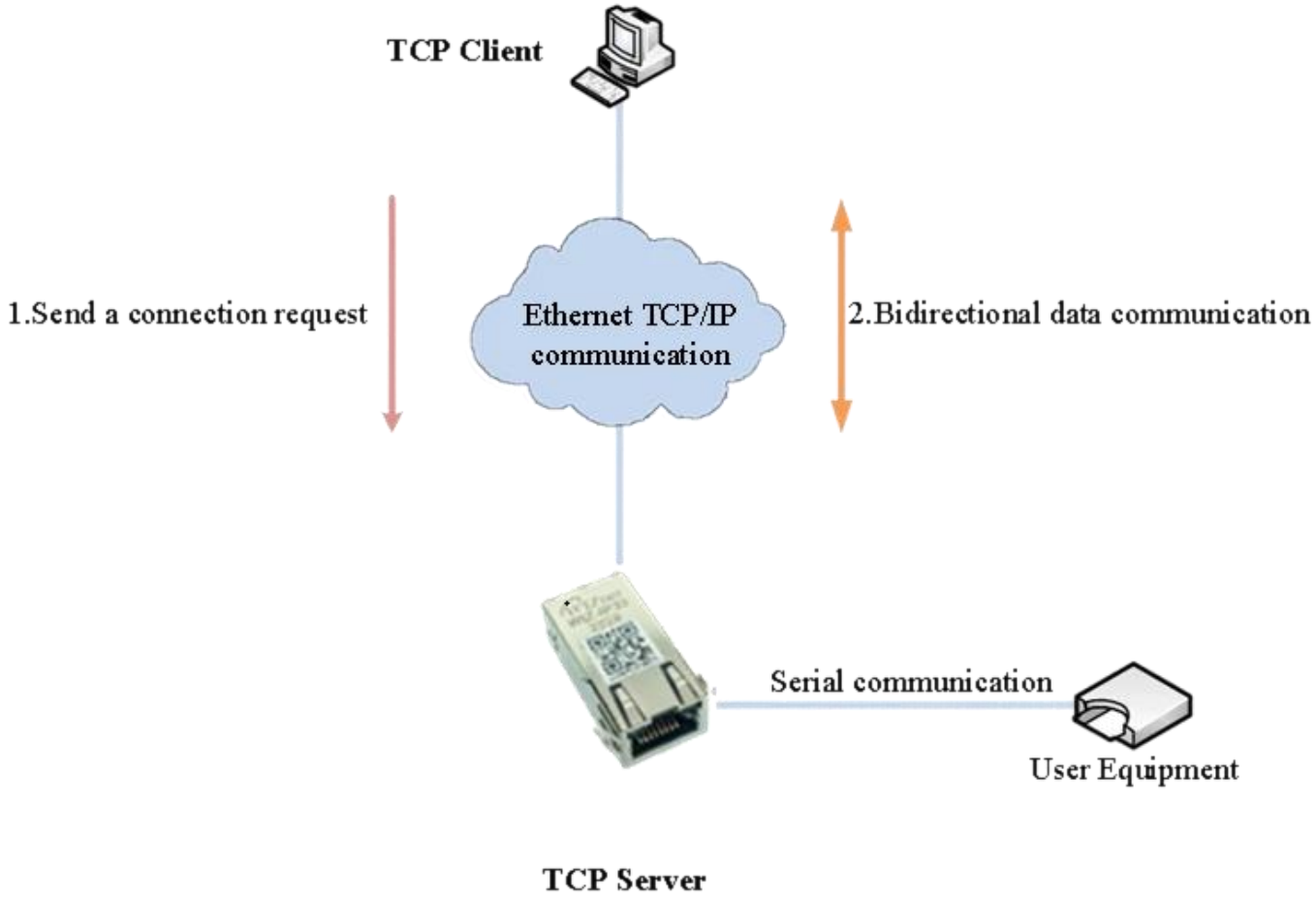


Figure 3-1 Schematic diagram of TCP server mode

As shown in Figure 3-1, in TCP Server mode, the WIZ-IP75 opens a local port for listening, with the default port number being 5000, waiting for connections from clients. Once a TCP connection is established with a client, bidirectional data communication can be carried out.

3.2 TCP client mode

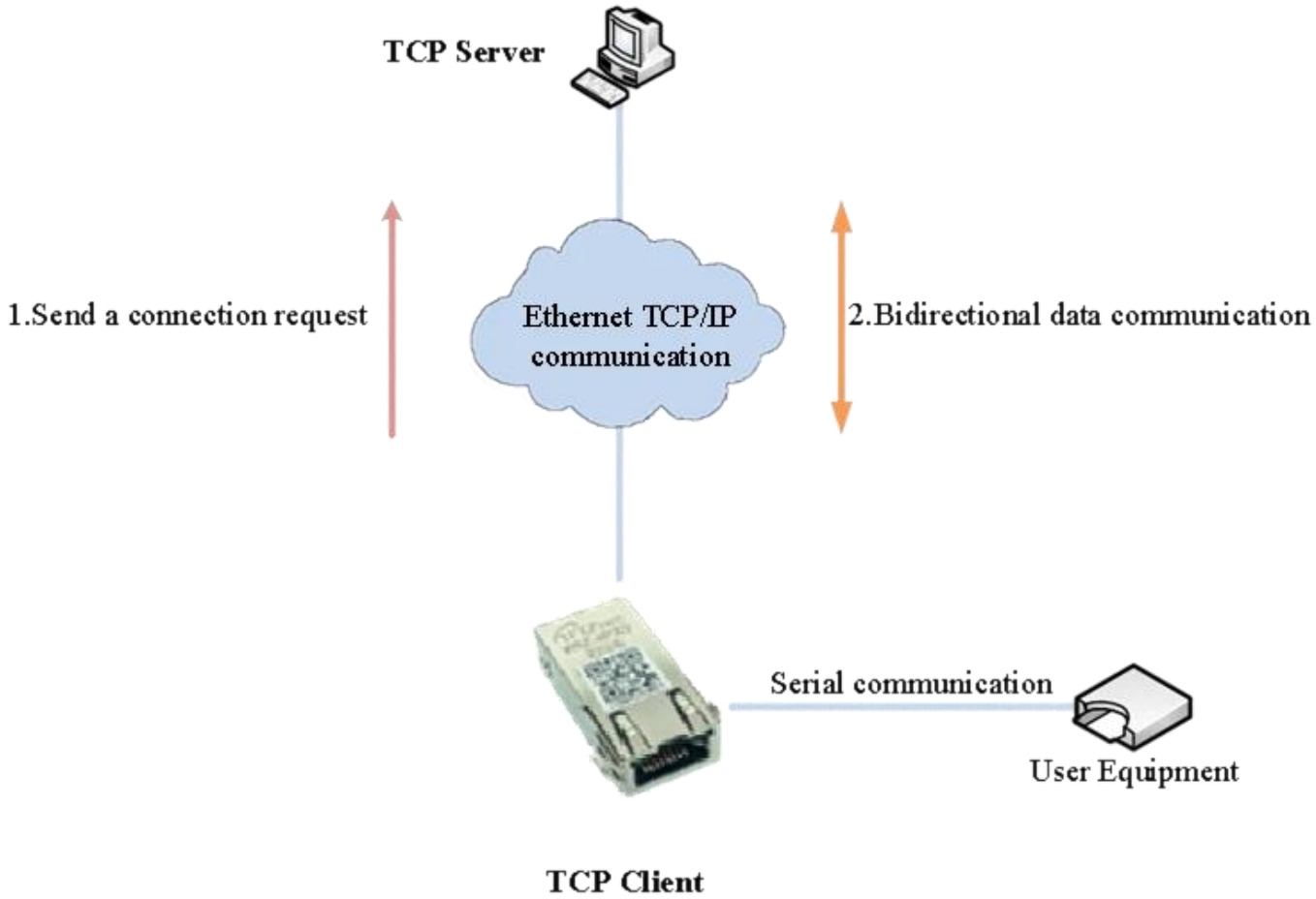


Figure 3-1 Schematic diagram of TCP client mode

As shown in Figure 3-2, in TCP Client mode, WIZ-IP75 will actively initiate connection requests to pre-set TCP servers. After establishing a TCP connection, bidirectional data communication can be carried out.

3.3 UDP mode

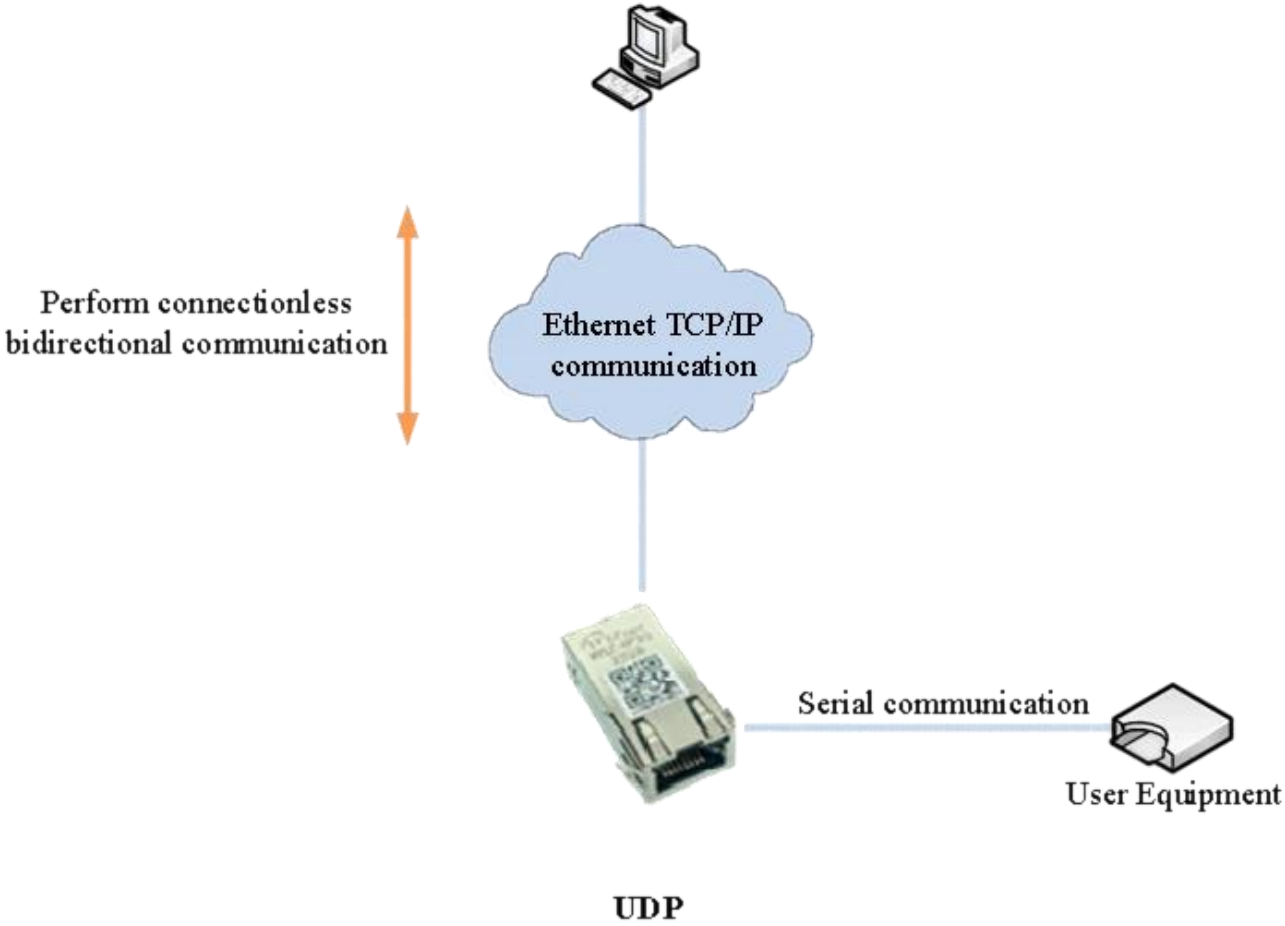


Figure 3-2 UDP mode diagram

As shown in Figure 3-3, UDP mode does not require establishing a connection. By setting the IP address and port number of WIZ-IP75 and remote modules, UDP communication can be achieved.

4 Data transfer mode

WIZ-IP75 serial to Ethernet modules support two data transmission modes for users to choose from: data transparent transmission mode and AT command transmission data mode.

4.1 Data pass-through mode

The data transmission mode of WIZ-IP75 has the following characteristics:

1 When using an MCU to configure the WIZ-IP75 for data transmission and reception, in general, before entering data transmission mode, it is necessary to configure parameters in AT command mode and then switch to data transmission mode;

2 After entering data transmission mode, the module will operate according to the configured working mode:

2.1 When the module is in TCP Server mode, it will immediately establish listening until a client establishes a connection with it;

2.2 When the module is in TCP Client mode, it will immediately request a connection from the server until a successful connection is established;

2.3 When the module is in UDP mode, there is no need to establish a connection and wait for user data;

3 After establishing a TCP or UDP connection, there is no need for any AT command operation, and the module can automatically send and receive data at any time, achieving transparent transmission of data;

4 If the TCP connection is disconnected normally, the module will take the following actions:

4.1 When the module is in TCP Server mode, it will re-establish listening;

4.2 When the module is in TCP Client mode, it will reapply for a connection to the server;

5 When configuring WIZ-IP75 to send and receive data using MCU, if you need to modify the configured parameters, you need to exit the data transmission mode and enter the AT command mode for parameter configuration.

4.2 AT data transfer command mode

The AT command transmission data mode of WIZ-IP75 has the following characteristics:

1 Parameters are configured in AT command mode, and data transmission is also performed in AT command mode without switching operating modes.

2 After configuring parameters in AT command mode, relevant AT data transmission commands can be directly called for TCP or UDP communication;

2.1 When configuring the module to TCP Server mode, the module will immediately establish listening until a client establishes a connection with it;

2.2 When configuring the module to TCP Client mode, the module will immediately apply to the server for a connection. If the connection cannot be successfully established within 3 seconds, a new command needs to be sent to apply for a connection;

2.3 When configuring the module in UDP mode, the module does not need to establish a connection and waits for user data;

3 After establishing a TCP connection or UDP, sending or receiving data requires corresponding AT commands for operation, and only one data packet can be sent/received at a time;

4 If a TCP connection disconnection is detected, the relevant AT data transmission command needs to be called again to establish the connection;

5 If you need to modify the configuration parameters, you can directly call the AT command for configuration.

4.3 How to enter “Data pass-through mode”

Users can enter data transmission mode through three ways:

1 AT command (see Chapter 7 "RESET" and "EXIT" commands for details);

2 Web pages (see "Start Mode" option in Chapter 8 "Basic Settings" tab for details);

3 WIZS2E Config Tool configuration tool (see "Enter... Mode when power on or reset" option in Chapter 6 "Additional Functions" for details).

5 WIZ-IP75's IP address

Before using WIZ-IP75, we need to know its IP address and other parameters. WIZ-IP75 supports two IP acquisition methods: "static configuration" and "dynamic acquisition". Static configuration refers to the need for users to manually configure parameters such as IP address, subnet mask, and gateway. It should be emphasized that the module IP address cannot be the same as the IP address of other modules in the same local area network, otherwise communication cannot be achieved. Dynamic acquisition refers to the module using the DHCP protocol to automatically obtain information such as IP address, subnet mask, and gateway from the DHCP server.

5.1 Factory setting of module IP address

The default IP address for WIZ-IP75 serial to Ethernet modules at the factory is 192.168.1.88.

5.2 Obtain module IP information

WIZ-IP75 has two methods to obtain module IP addresses:

1 WIZS2E Config Tool upper computer software, refer to the instructions in Chapter 6.1 for details;

2 AT command query, please refer to Chapter 7 "IP" query command for details

5.3 Method for determining if the module and computer are on the same network segment

Before using a computer to communicate with WIZ-IP75, users need to ensure that their computer is on the same network segment as WIZ-IP75. WIZ-IP75 is set with a default IP address (192.168.1.88) and network mask (255.255.255.0) at the factory. Users can check whether the module is on the same subnet as their computer according to the process shown in the following figure.

If in the same subnet, WIZ-IP75 modules can be directly used for communication. If they are not on the same subnet, it is necessary to set the IP address of the computer.

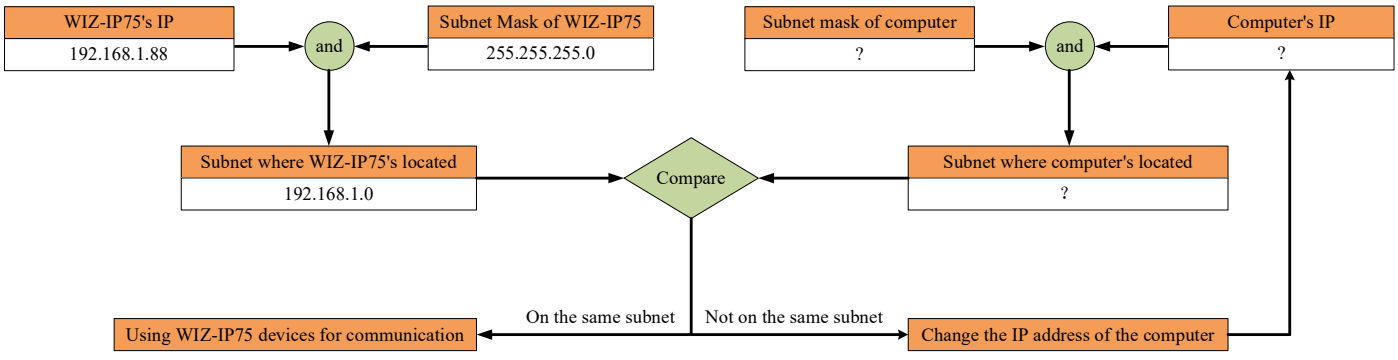


Figure 5-1 WIZ-IP75 and computer IP address same subnet detection

5.4 Computer IP setting method

Taking the Windows 10 operating system as an example for explanation.

Start → Control Panel → Network Sharing Center → Change Adapter Settings → Local Area Connection → Right click Properties → Double click Internet Protocol Version 4 (TCP/IPv4) to obtain the page shown in the following figure. Select 'Use the following IP address' and fill in the IP address, such as 192.168.1.99, subnet mask 255.255.255.0, default gateway 192.168.1.1, DNS section can be left blank, click' OK 'to complete the configuration. You can now communicate with WIZ-IP75 modules.

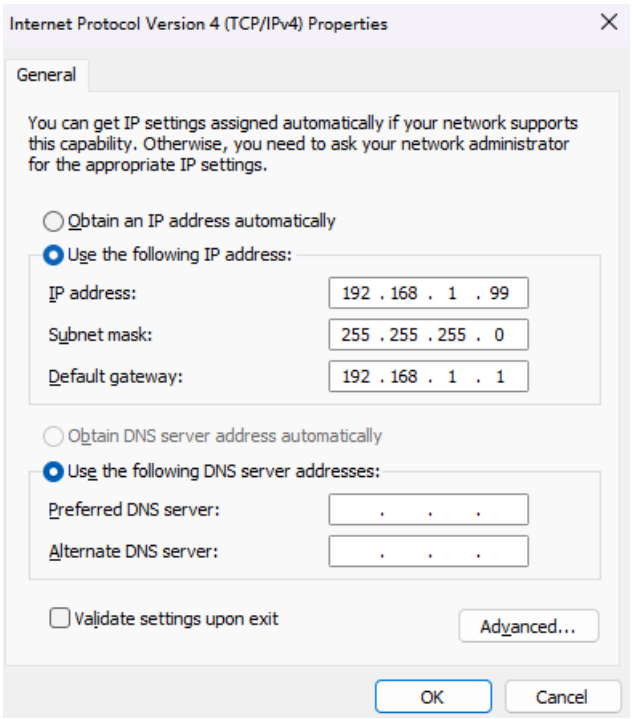


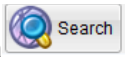
Figure 5-2 Windows 10 IP address setting interface

6 WIZS2E Config Tool software configuration

The WIZS2E Config Tool is PC configuration software that runs on the Windows operating system and is compatible with WIZ-IP75 and W5500S2E series serial port to Ethernet modules. Users can easily search, view, and configure various functions and information of the WIZ-IP75 serial port to Ethernet module through WIZS2E ConfigTool.

Note: It is recommended to turn off the firewall before configuration and ensure that the IP addresses of all modules in the local area network do not conflict.

6.1 Obtain module configuration information

Click the button 

in the toolbar. The search panel on the left will list all found WIZ-IP75 modules, categorized by their MAC address. Click on the "⊞" in front of the list to expand and view detailed information about the module.

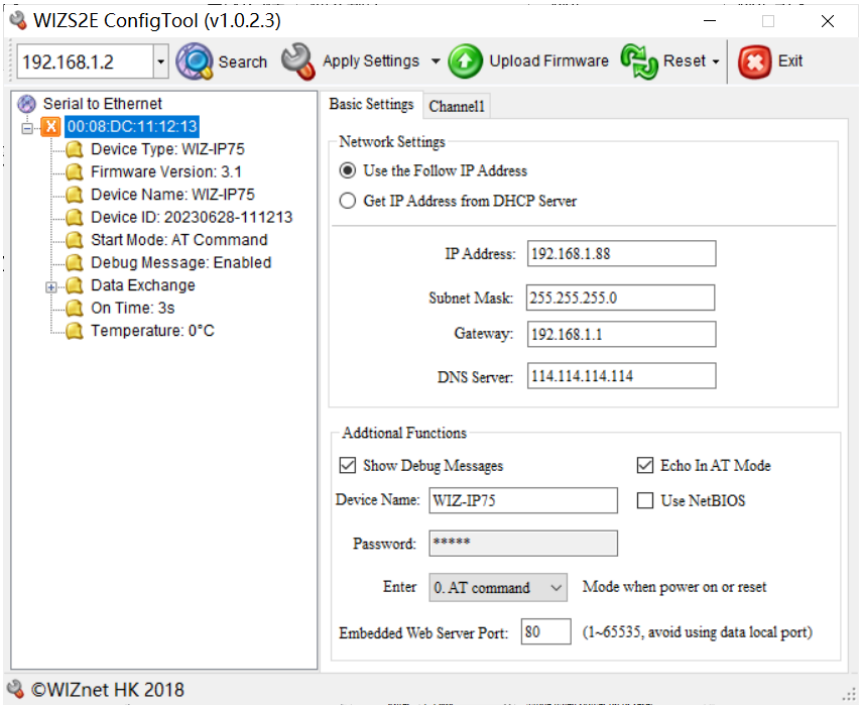


Figure 6-1 Basic configuration interface of WIZS2E Config Tool

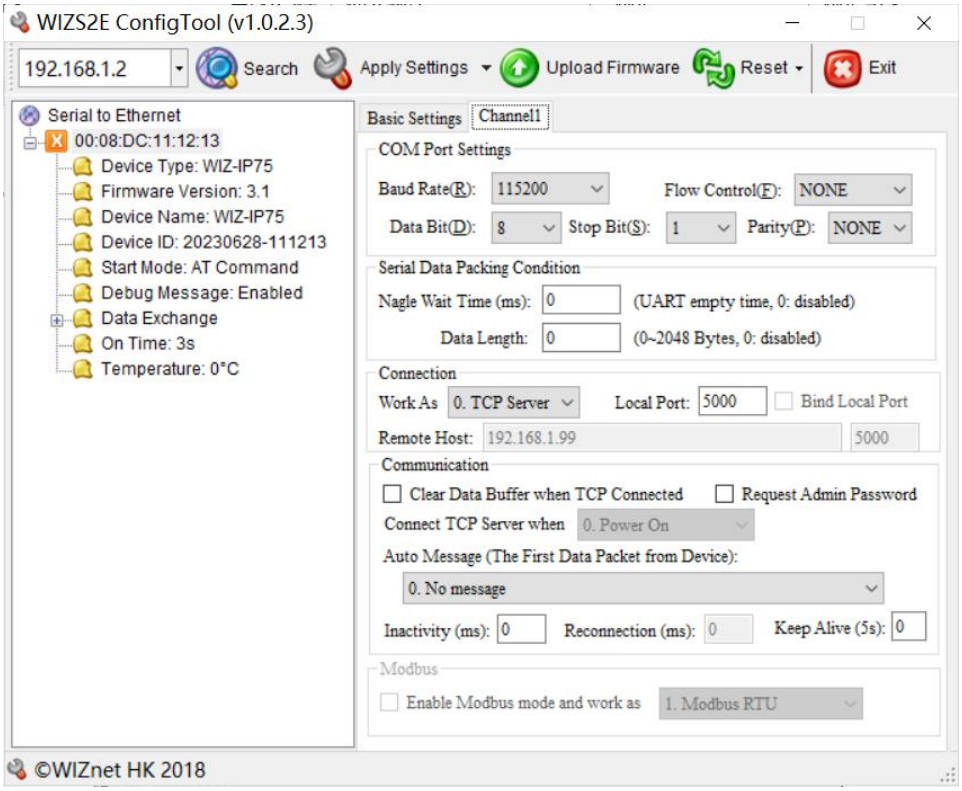
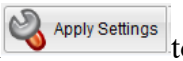


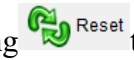
Figure 6-2 Channel1 interface

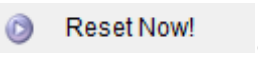
6.2 Modify module configuration information

After searching for the module, users can directly modify the module information in the basic and advanced configuration interfaces, and click the button 

to save the configuration information.

6.3 Reset module

Clicking 

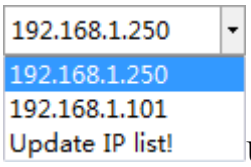
the button will bring up a dropdown menu, and clicking 

on it will immediately restart the module (without saving the configuration).

6.4 Practical functions

6.4.1 Switch network card

In order to solve the problem of not being able to determine whether the current module is a wired or wireless network card when configuring a laptop, this tool has added a function to switch network cards,



Users can first click "Update IP list!" to update the network card list, and then select the corresponding network card for configuration according to the actual situation.

6.4.2 Right-Click Menu

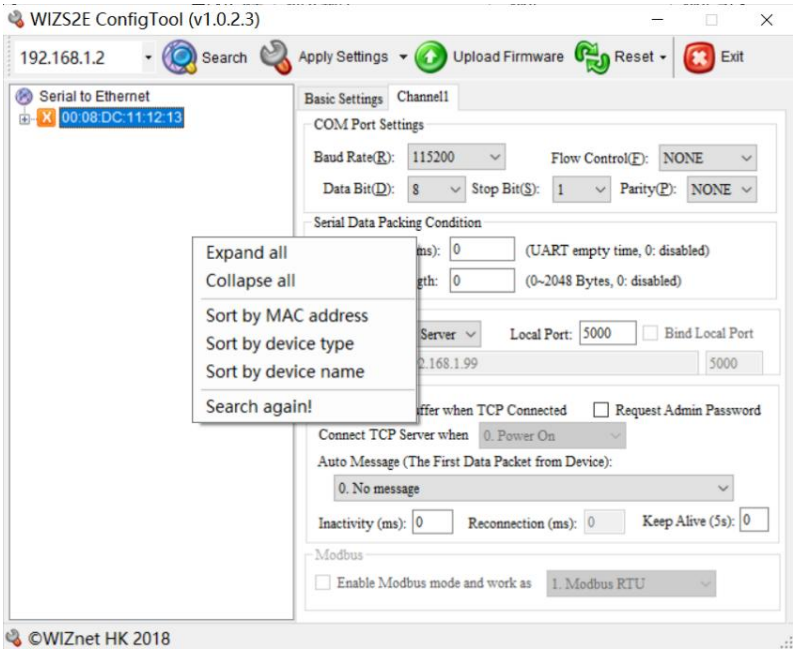


Figure 6-3 Right mouse button function

Right click on the module list on the left, as shown in the figure below, and a list of three functions will appear:

1. Expand/collapse all module details;

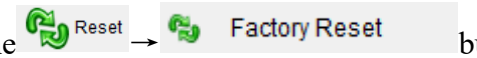
2. The searched modules can be sorted by MAC address, module type, or module name;

3. Search again! :This function allows users to keep the original module list unchanged when configuring modules in batches, and the newly searched module information will be added after the original module list.

6.5 Factory reset

If a user needs to restore the WIZ-IP75 serial-to-Ethernet module to its factory settings during use, there are three methods available: software method, AT command method, and web page method.

6.5.1 Restore software to factory settings

Firstly, click the left mouse button in the module list of WIZS2E Config Tool software to select the module that needs to be restored, and then click the 

button in the toolbar to factory Reset.

6.5.2 Restore factory settings through AT command

Refer to Chapter 7 for details on the "DEFAULT" command.

6.5.3 Web page format

Please refer to Chapter 8.4for an introduction to the module management interface.

7 Introduction of AT commands

7.1 AT command overview

The AT commands supported by the WIZ-IP75 serial to Ethernet modules use a standard interface. They are not case-sensitive, always start with "AT", and end with "\r\n". The format of its commands, return values, and parameters is fixed. Generally speaking, AT commands have the following formats:

1、No parameter command

Format: AT+<command>\r\n

Explanation: The command is followed by no parameters or symbols.

Example:

Command: *AT+EXIT\r\n*

Response: *OK\r\n*

2、Query command

Format: AT＋<command>?\r\n

Description: Used to query the current configuration value of a parameter.

Example:

Command: *AT+ECHO?\r\n*

Response: *[ECHO] Value is: 1\r\nOK\r\n*

3、Command with parameters

Format: AT＋<command>=<parameter>\r\n

Explanation: It is the most commonly used format for setting a certain parameter (except for the DEFAULT command and RESET).

Example:

Command: *AT+ECHO=1\r\n*

Response: *[ECHO] Value is: 1\r\n OK\r\n*

7.2 AT command Responses

According to the different AT commands input by the user, WIZ-IP75 will reply with the execution results of the commands, as shown in Table 7-1.

Table 7-1 AT command return value list

Response type	Response	Description
Error message	Command Invalid\r\nERROR\r\n	Invalid command
	<Error Info>\r\n	Invalid parameter or in the wrong modee
Success message	OK\r\n	Command is executed successfully
	[Command] Value is: <value>\r\nOK\r\n	

7.3 Entering AT Command Mode.

There are two operating modes for WIZ-IP75 serial to Ethernet modules: AT command mode and data transmission mode. In AT command mode, users can use serial tools or configure various parameters of the module through their MCU, and also support data transmission under AT commands.

Note: If a TCP connection is established before entering AT command mode, the connection will be closed when entering AT command mode.

When WIZ-IP75 is in AT command mode, input the terminal detection command "AT\r\n" to its serial port. If the module correctly receives "AT\r\n", it will reply with "OK\r\n".

When WIZ-IP75 is in data transmission mode, any AT command input to the serial port is invalid. At this point, input "+++" to the serial port, and WIZ-IP75 will switch to AT command mode.

Input rule for "+++": Three "+" must be sent continuously to the serial port at once, and there must be no other characters within 1 second before and after the "+++" in order for WIZ-IP75 to respond correctly and switch to AT command mode.

Note: The default operating mode of WIZ-IP75 at the factory is AT command mode.

7.4 AT command list

WIZ-IP75 serial to Ethernet modules support serial AT command configuration parameters and also support data transmission in AT command mode. Therefore, AT commands can be roughly divided into two categories: AT configuration commands and AT data transmission commands.

7.4.1 AT Configuration Command List

The AT configuration commands are used to configure or query various parameters of the WIZ-IP75. They are specifically divided into control commands, module information configuration commands, serial port information configuration commands, and management commands, as shown in Table 7-2. (R: Readable; W: Configurable; R/W: Readable and Configurable)

Table 7-2 Configure command list

Type	Command name	Function	Attribute	Max length	Parameters
Control command	AT	Terminal check	R	-	-
	ECHO	Enable or disable echoing	R/W	1	0: Echo off 1: Echo on (default)
	DEBUGMSGEN	Debug messag	R/W	1	0: Disable 1: Enable (default)
	NAME	Module name	R/W	15	Must be numbers, alphabets or the combination of both
	PASS	Module password	R/W	15	Must be numbers, alphabets or the combination of both (Default: admin)
	DEFAULT	Reset to factory default	W	15	Module password
	RESET	Save and restart module	W	15	Reset if parameter equals to password
	EXIT	Exit AT command	W	-	-
	SAVE	Save settings	W	-	-
Module Information Configuration Commands	START_MODE	Start mode	R/W	1	0: AT command mode (default) 1: Data pass-through mode
	C1_OP	Operating mode	R/W	2	0: TCP Server(default) 1: TCP Client 2: UDP
	IP_MODE	IP configuration method	R/W	1	0: Static IP mode (default) 1: DHCP mode
	IP	IP address	R/W	15	Default :192.168.1.88
	MASK	Subnet mask	R/W	15	Default :255.255.255.0
	GATEWAY	Gateway	R/W	15	Default :192.168.1.1
	DNS	DNS server address	R/W	15	Default :114.114.114.114
	C1_PORT	Local port number	R/W	5	1 ~ 65535;Default: 5000
	C1_BIND	Local port binding	R/W	1	Valid only in TCP Client mode 0: Disable (default) 1: Enable
	DNSEN	DNS for remote host	R/W	1	0: Disable (default) 1: Enable
	C1_CLI_IP1	Remote host IP address	R/W	15	Default: 192.168.1.99
	C1_CLI_PP1	Remote host port number	R/W	5	1 ~ 65535; Default: 5000
	C1_DOMAIN	Remote host name	R/W	32	Default: www.w5500.com
	C1_RECONTIME	Reconnect time	R/W	5	Valid for TCP client The value range is: 0 ~ 60000 Unit: ms Default: 0 (reconnect immediately)
	NETBIOS	NetBIOS	R/W	1	0: Disable(default) 1: Enable

Serial Port Information Configuration Commands	COM1	Serial port parameters	R/W	10	Default: 9,1,0,1,0
	C1_BAUD	Baud rate index	R/W	2	0: 1200; 1: 2400; 2: 4800 3: 9600; 4: 14400; 5: 19200 6: 38400; 7: 56000; 8: 57600 9: 115200 (default); 10: 128000 11: 234000; 12: 256000; 13: 468000 14: 921600; 15: 1152000
	C1_DATAB	Data bit index	R/W	1	0:7 digits 1: 8-bit (default)
	C1_STOPB	Stop bit	R/W	1	0: 1 (default) 1: 2
	C1_PARITY	Parity bit	R/W	1	0:Disable (default) 1: Odd 2: Even
	C1_SER_C	Serial flow control	R/W	1	0: No flow control (default) 0: Enable CTS/RTS hardware flow control
	C1_BUF_CLS	Clear Buffer if Connected	R/W	1	Valid only in TCP modes 0: Disable (default) 1:Enable
	C1_SER_LEN	packet length	R/W	4	The value range is: 0 ~ 2048 bytes Default: 0 (no packet)
	C1_SER_T	Serial data packing Nagle wait time (ms)	R/W	5	Value range: 0 ~ 60000 Unit: ms Default: 0 (Disable))
	C1_IT	Timeout disconnect time	R/W	5	Valid only in TCP modes Value range: 0 ~ 60000 Unit: ms Default: 0 (disable this function)
	C1_TCPAT	Heartbeat detection time	R/W	3	Valid only in TCP modes Value range: 0 ~ 255 Unit: 5s Default: 0 (disable this feature)
	C1_LINK_P	Connection password verification	R/W	1	Valid only in TCP server mode 0: Disable (default) 1: Enable
	C1_LINK_T	Connection establishment conditions	R/W	1	Valid only in TCP modes 0: Connect when power on (default) 1: Connect when receiving data from serial
	C1_LINK_M	Send a message after connecting	R/W	1	Valid only in TCP modes 0: Disable (Default) 1: Send module name 2: Send MAC address 3: Send IP address

Management Commands	C1_SEND_NUM	Serial sent byte	R	-	Display range is 0 ~ 4294967295
	C1_RCV_NUM	Serial received byte	R	-	Display range is 0 ~ 4294967295
	C1_NETSEND	Network sent byte	R	-	Display range is 0 ~ 4294967295
	C1_NETRCV	Network received byte	R	-	Display range is 0 ~ 4294967295
	PRE	List preset values	R	-	-
	LIST	List all commands	R	-	-
	RUNTIME	Module uptime	R	-	-
	VER	Firmware version	R	-	-
	MAC	MAC address	R	-	-
	SN	Serial number	R	-	-
	TYPE	Module P/N	R	-	-
	WEB_PORT	Web configuration port number	R/W	5	1 ~ 65535;Default: 80

7.4.2 AT Data Transmission Command List

The AT data transmission command enables WIZ-IP75 to achieve data transmission and receive in AT command mode. (R: searchable; W: Configurable; R/W: searchable and configurable)

Table 7-3 AT data transmission command list

Type	Command name	Function	Attribute	Max length	Parameters
Data transmission command	LINK	PHY link status	R	-	0: PHY link not connect 1: PHY link connected
	LISTEN	Listening on TCP	W	-	-
	CONNECT	Initiate TCP connection	W	-	-
	TCP_STATUS	TCP connection status	R	-	0: TCP closed 1: TCP connected
	UDP	Establish UDP	W	-	-
	SEND	Send the length	W	4	Range: 0 ~ 2048 Default: 0 (any length)
	RLEN	Number of bytes of data to be received	R	-	-
	RCV	Receive Data	W	4	Range: 0 ~ 2048 Default: 0 (any length)
	CLEAR	Clear network receiving buffer	W	-	-
	DISCON	Close socket	W	-	-

7.5 Detailed description of AT configuration command

7.5.1 Control command

AT(Terminal check)

Command format		Parameters	Usage
AT		Nil	Read
Response	OK\r\n		
Example	*Command: AT\r\n* *Response: OK\r\n*		

Description: In AT command mode, it can be configured.

ECHO(Enable or disable echoing)

Command format		Parameters	Usage
AT+ECHO?		Nil	Read
AT+ECHO=<parameter>		0: Echo off 1: Echo on (default)	Set
Response	[ECHO] Value is: <value>\r\nOK \r\n		
Example	*Command: AT+ECHO?\r\n* *Response: [ECHO] Value is: 1\r\nOK\r\n*		

Command description: The echo function returns the data input from the serial port unchanged, and is only active in AT command mode. When users configure the module using serial port software, enabling the echo function helps them perform the configuration more conveniently. However, when configuring the module using embedded modules such as microcontrollers, enabling the echo function will cause troubles, and it is recommended to disable it in this case.

DEBUGMSGEN(Debug message)

Command format		Parameters	Usage
AT+ DEBUGMSGEN?		Nil	Read
AT+DEBUGMSGEN=<parameter>		0: Disable 1: Enable (default)	Set
Response	[DEBUGMSGEN] Value is: <value>\r\nOK \r\n		
Example	*Command: AT+DEBUGMSGEN=1\r\n* *Response: [DEBUGMSGEN] Value is: 1\r\nOK\r\n*		

Command description: This command is used to enable or disable the output of debug information. The debug information includes the module's basic information and module state change information, which will be output through the serial port during startup for users to check. If users do not need this information, they can disable the debug information output via this command.

NAME(Module name)

Command format	Parameters	Usage
AT+NAME?	Nil	Read
AT+NAME =<parameter>	User defined device name. It must be numbers, alphabets or the combination of both. Maximum length is 15 byte. Cannot be null Default: Module P/N	Set
Response	[NAME] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+NAME=User1\r\n* *Response: [NAME] Value is: User1\r\nOK\r\n*	

Command description: Users can customize module names through this command.

Note: This command can be used with the NetBIOS function. If the NetBIOS function is enabled, users can access the module through the module name in the browser. Please refer to the "AT+NETBIOS" command.

PASS(Module password)

Command format	Parameters	Usage
AT+PASS?	Nil	Read
AT+PASS=<parameter>	User define password. It must be numbers, alphabets or the combination of both. Maximum length is 15 byte. It is case sensitive and cannot be null. Default: admin	Set
Response	[PASS] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+PASS=Admin1\r\n* *Response: [PASS] Value is: Admin1\r\nOK\r\n*	

Command description: The module password is used for restoring factory settings, verifying connection passwords, authenticating web logins, and saving configurations before restarting the module.

Note:

Factory reset function:

If you need to use the AT command to restore factory settings, you must enter the correct module password. Please refer to the "DEFAULT" command for detailed functions.

Connection password verification function:

To enhance communication security, the WIZ-IP75 module provides a "connection password verification" function. When the module acts as a TCP Server to communicate with a client, if the "connection password verification" function is enabled, the client must enter the module password through the network port after establishing a connection with the module. If the password is correct, communication can start; if the password is incorrect, a prompt to re-enter the correct password will be displayed. For detailed functions, please refer to the "C1_LINK_P" command.

Web login password verification function:

If you need to log in to the module configuration webpage, you must enter the correct module password on the login verification page.

Save configuration and restart module functionality:

To save the current configuration and restart the module, the correct module password must be entered to reset. After using this command, all sockets will be automatically closed. Please refer to the "RESET" command for detailed functions.

DEFAULT(Reset to factory default)

Command format	Parameters	Usage
AT+DEFAULT=<parameter>	Module password; Default: admin	Set
Response	OK\r\n	
Example	*Command: AT+DEFAULT=admin\r\n* *Response: OK\r\n*	

Command description: The module password must be completely correct in order to restore factory settings. The module password can be queried and set through the "PASS" command.

RESET(Save and restart the module)

Command format	Parameters	Usage
AT+RESET=<parameter>	Module password; Default: admin	Set
Response	OK\r\n	
Example	*Command: AT+RESET=admin\r\n* *Response: OK\r\n*	

Command description:

1 Save the current configuration information;

2 Restart the module to make the configuration information take effect;

3 When users need to directly enter data transmission mode during the next power on, they can configure the parameter value of the "AT+START-MODE=1\r\n" command to be 1, and then configure the "RESET" command;

4 The module password can be queried and set through the "PASS" command.

EXIT(Save and exit command mode)

Command format	Parameters	Usage
AT+EXIT	Nil	Execute
Response	OK\r\n	
Example	*Command: AT+EXIT\r\n* *Response: OK\r\n*	

Command description:

1 Save the current configuration information;

2 Make the configuration information effective;

3 Exit AT command mode and enter data transmission mode.

SAVE(Save settings)

Command format	Parameters	Usage
AT+SAVE	Nil	Execute
Response	OK\r\n	
Example	*Command: AT+SAVE\r\n* *Response: OK\r\n*	

Command description:

1 Save the current configuration information;

2 Make the configuration information effective;

3 After configuring this command, the module remains in AT command mode.

7.5.2 module information configuration command

START_MODE(Start mode)

Command format	Parameters	Usage
AT+START_MODE?	Nil	Read
AT+START_MODE=<parameter>	0: AT command mode (default) 1: Data pass-through mode	Set
Response	[START_MODE] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+START_MODE=1\r\n* *Response: [START_MODE] Value is: 1\r\nOK\r\n*	

Command description: This command configures the running mode for the next startup. When users need to directly enter data transmission mode during the next power on, they can configure the parameter value of the "START_MODE" command to be 1, and then configure the "RESET" command.

C1_OP(Operating mode)

Command format	Parameters	Usage
AT+C1_OP?	Nil	Read
AT+C1_OP=<parameter>	<parameter>: 0: TCP Server(default) 1: TCP Client 2: UDP	Set
Response	[C1_OP] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_OP=1\r\n* *Response: [C1_OP] Value is: 1\r\nOK\r\n*	

Command description: When transmitting data in AT command mode, if you need to use this command to modify the working mode of the module channel, you need to first call the "DISCON" command to turn off TCP/UDP.

IP_MODE (IP acquisition method)

Command format	Parameters	Usage
AT+IP_MODE?	Nil	Read
AT+IP_MODE=<parameter>	0: Static IP mode (default) 1: DHCP mode	Set
Response	[IP_MODE] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+IP_MODE=1\r\n* *Response: [IP_MODE] Value is: 1\r\nOK\r\n*	

Command description: When selecting the static IP method, users need to set their own IP address, gateway, subnet mask, DNS server address, etc., or they can choose the default settings; When selecting DHCP mode, WIZ-IP75 will dynamically obtain IP information through DHCP servers in the local area network.

IP(IP address)

Command format	Parameters	Usage
AT+IP?	Nil	Read
AT+IP=<parameter>	Default: 192.168.1.88	Set
Response	[IP] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+IP=192.168.1.88\r\n* *Response: [IP] Value is: 192.168.1.88\r\nOK\r\n*	

Command description: The IP address is represented in IPv4 standard format, such as 192.168.1.88; Its maximum length is 15 bytes, and the range of values for each decimal number is from 0 to 255. This setting only takes effect when the IP configuration mode (IP_MODE) is set to 'Static IP Mode'.

MASK(Subnet mask)

Command format	Parameters	Usage
AT+MASK?	Nil	Read
AT+MASK=<parameter>	Default: 255.255.255.0	Set
Response	[MASK] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+MASK=255.255.255.0\r\n* *Response: [MASK] Value is: 255.255.255.0\r\nOK\r\n*	

Command description: The subnet mask is represented in IPv4 standard format, such as 255.255.255.0, with a maximum length of 15 bytes. This setting only takes effect when the IP configuration mode (IP_MODE) is set to 'Static IP Mode'.

GATEWAY(Gateway)

Command format	Parameters	Usage
AT+GATEWAY?	Nil	Read
AT+ GATEWAY =<parameter>	Default: 192.168.1.1	Set
Response	[GATEWAY] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+GATEWAY=192.168.1.1\r\n* *Response: [GATEWAY] Value is: 192.168.1.1\r\nOK\r\n*	

Command description: The gateway IP address is represented in IPv4 standard format, such as 192.168.1.1, with a maximum length of 15 bytes. This setting only takes effect when the IP configuration mode (IP_MODE) is in 'Static IP Mode'.

DNS(DNS server address)

Command format	Parameters	Usage
AT+DNS?	Nil	Read
AT+DNS=<parameter>	Default: 114.114.114.114	Set
Response	[DNS] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+DNS=114.114.114.114\r\n* *Response: [DNS] Value is: 114.114.114.114\r\nOK\r\n*	

Command description: The DNS server address is represented in IPv4 standard format, such as 114.114.114.114, with a maximum length of 15 bytes. This configuration does not accept address inputs ending in ". 0" or ". 255", for example: xxx.xxx.xxx.0 or xxx.xxx.xxx.255.

C1_PORT(Local port number)

Command format	Parameters	Usage
AT+C1_PORT?	Nil	Read
AT+C1_PORT=<parameter>	<parameter>: Range: 1 ~ 65535, default: 5000	Set
Response	[C1_PORT]Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_PORT=5000\r\n* *Response: [C1_PORT] Value is: 5000\r\nOK\r\n*	

Command description: This command is used to configure the local port number. The module operates in TCP Server and UDP mode to communicates with the user through this port.

Note: Some protocols in the Ethernet protocol have default port numbers, which should be avoided. The default occupied port numbers are shown in the appendix.

C1_BIND(Local port binding)

Command format	Parameters	Usage
AT+C1_BIND?	Nil	Read
AT+C1_BIND=<parameter>	0: Disable (Default) 1: Enable	Set
Response	[C1_BIND] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_BIND=1\r\n* *Response: [C1_BIND] Value is: 1\r\nOK\r\n*	

Command description: The module could only vaild in TCP Client mode. After binding the port number, WIZ-IP75 will always use the local port number configured by the "C1_PORT" command.

C1_DNSEN(DNS function)

Command format	Parameters	Usage
AT+C1_DNSEN?	Nil	Read
AT+C1_DNSEN=<parameter>	0: Disable (Default) 1: Enable	Set
Response	[C1_DNSEN] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_DNSEN=1\r\n* *Response: [C1_DNSEN] Value is: 1\r\nOK\r\n*	

Command description: This setting takes effect only when the module operates in TCP Client or UDP mode. After enabling DNS functionality, WIZ-IP75 can access remote hosts using domain names. WIZ-IP75 performs a DNS query upon each power-up.

Notes:

1 If enabled and "C1_DOMAIN" is set, the "C1_CLI_IP1" command becomes invalid. The module communicates with the host defined by "C1_DOMAIN";

2 If disabled and "C1_CLI_IP1" is set, the "C1_DOMAIN" command becomes invalid. The module communicates with the IP defined by "C1_CLI_IP1";

3 To use the DNS function, the module's IP information must be configured correctly. It is recommended to configure the module to DHCP mode.

C1_CLI_IP1(Remote host IP address)

Command format	Parameters	Usage
AT+C1_CLI_IP1?	Nil	Read
AT+C1_CLI_IP1=<parameter>	Default: 192.168.1.99	Set
Response	[C1_CLI_IP1] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_CLI_IP1=192.168.1.99\r\n* *Response: [C1_CLI_IP1] Value is: 192.168.1.99\r\nOK\r\n*	

Command description: This command is valid when the module is operating in TCP Client and UDP mode. The IP address must comply with IPv4 format, such as 192.168.1.99, as defined in the "IP" command.

Note: If the parameter value of the "DNSEN" command is 0, the parameters configured by this command are valid.

C1_CLI_PP1(Remote host port number)

Command format	Parameters	Usage
AT+C1_CLI_PP1?	Nil	Read
AT+C1_CLI_PP1=<parameter>	ange: 1 ~ 65535, default: 5000	Set
Response	[C1_CLI_PP1] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_CLI_PP1=5000\r\n* *Response: [C1_CLI_PP1] Value is: 5000\r\nOK\r\n*	

Command description: The module operates in TCP Client and UDP.

Note: Some protocols in the Ethernet protocol have default port numbers, which should be avoided. The default occupied port numbers are shown in the appendix.

C1_DOMAIN((Remote host name)

Command format	Parameters	Usage
AT+C1_DOMAIN?	Nil	Read
AT+C1_DOMAIN=<parameter>	Remote host domain name Default: www.w5500.com Maximum length is 32 bytes	Set
Response	[C1_DOMAIN] Value is: <value> \r\nOK\r\n	
Example	*Command: AT+C1_DOMAIN=www.w5500.com\r\n* *Response: [C1_DOMAIN] Value is: www.w5500.com\r\nOK\r\n*	

Command description: This command is used to configure the remote host by domain name, which can avoid the inconvenience caused by the IP address change of the remote host. It is effective when the module operates in TCP Client and UDP modes.

Note: The command takes effect only when the "DNSEN" command's parameter value is set to 1.

C1_RECONTIME(Reconnection interval)

Command format	Parameters	Usage
AT+C1_RECONTIME?	Nil	Read
AT+C1_RECONTIME=<parameter>	Range: 0 ~ 60000 Unit: ms Default: 0 (reconnect immediately)	Set
Response	[C1_RECONTIME] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_RECONTIME=1000\r\n* *Response: [C1_RECONTIME] Value is: 1000\r\nOK\r\n*	

Command description: The command is valid when running in TCP Client and transparent mode. This command sets the time interval for the next connection request between WIZ-IP75 and the remote host after the TCP connection is disconnected.

NETBIOS(NetBIOS)

Command format	Parameters	Usage
AT+NETBIOS?	Nil	Read
AT+NETBIOS=<parameter>	<parameter>: 0: Disable NetBIOS function (default) 1: Enable NetBIOS functionality	Set
Response	[NETBIOS] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+NETBIOS=1\r\n* *Response: [NETBIOS] Value is: 1\r\nOK\r\n*	

Command description: The NetBIOS protocol can provide module naming services within a local area network. After enabling the NetBIOS function, users can directly access the built-in web page of the WIZ-IP75 by entering "http://module name" in the browser's address bar. The module name is configured via the "NAME" command.

7.5.3 Serial port information configuration command

COM1(Serial parameters)

Command format	Parameters	Usage
AT+COM1?	Nil	Read
AT+COM=<par1>,<par2>,<par3>,<par4>,<par5>	<par1>: Baud rate parameter, refer to the "C1_BAUD" command <par2>: Data bit parameters, refer to the "C1_DATAB" command <par3>: Parity bit parameter, refer to the "C1_PARITY" command <par4>: Stop bit parameter, refer to the "C1_STOPB" command <par5>: Serial port flow control parameters, refer to the "C1_ESER_C" command	Set
Response	[COM1] Value is: <value1><value2><value3><value4><value5>\r\nOK\r\n explain: <value1>: Baud rate parameter value <value2>: Data bit parameter value <value3>: Parity bit parameter value <value4>: Stop bit parameter value <value5>: Serial port flow control parameter values	
Example	*Command: AT+COM1=9,1,0,1,0\r\n* *Response: [COM1] Value is: 9,1,0,1,0\r\nOK\r\n*	

Command Description: This command is used to configure or query the five common parameters of the serial port at once. It can also be configured or queried separately using the corresponding commands.

C1_BAUD(Baud rate)

Command format	Parameters	Usage
AT+C1_BAUD?	Nil	Read
AT+C1_BAUD=<parameter>	<parameter>: 0: 1200; 1: 2400; 2: 4800 3: 9600; 4: 14400; 5: 19200 6: 38400; 7: 56000; 8: 57600 9: 115200 (default); 10: 128000 11: 234000; 12: 256000; 13: 468000 14: 921600; 15: 1152000	Set
Response	[C1_BAUD] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_BAUD=9\r\n* *Response: [C1_BAUD] Value is: 9\r\nOK\r\n*	

Command Description: This command is used to configure or query the baud rate of Serial Port 1.

C1_DATAB(Data bit)

Command format	Parameters	Usage
AT+C1_DATAB?	Nil	Read
AT+C1_DATAB=<parameter>	0: 7bit 1: 8bit (default)	Set
Response	[C1_DATAB] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_DATAB=1\r\n* *Response: [C1_DATAB] Value is: 1\r\nOK\r\n*	

Command Description: This command is used to configure or query the data bits of Serial Port 1.

C1_STOPB(Stop bit)

Command format	Parameters	Usage
AT+C1_STOPB?	Nil	Read
AT+C1_STOPB=<parameter>	0:0.5 1:1 (default) 2:1.5 3:2	Set
Response	[C1_STOPB] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_STOPB=1\r\n* *Response: [C1_STOPB] Value is: 1\r\nOK\r\n*	

Command Description: This command is used to configure or query the stop bit of Serial Port 1.

C1_PARITY(Parity bit)

Command format	Parameters	Usage
AT+C1_PARITY?	Nil	Read
AT+C1_PARITY=<parameter>	<parameter>: 0:Nil (default) 1:Odd 2:Even	Set
Response	[C1_PARITY] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_PARITY=0\r\n* *Response: [C1_PARITY] Value is: 0\r\nOK\r\n*	

Command Description: This command is used to configure or query the parity bit of Serial Port 1.

C1_SER_C(Serial port flow control)

Command format	Parameters	Usage
AT+C1_SER_C?	Nil	Read
AT+C1_SER_C =<parameter>	<parameter>: 0: No flow control(default) 1: Enable the hardware flow control for the serial port CTS/RTS.	Set
Response	[C1_SER_C] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_SER_C=0\r\n* *Response: [C1_SER_C] Value is: 0\r\nOK\r\n*	

Command Description: This command enables the serial port's hardware flow control. During high-speed data transmission, flow control improves data reception accuracy.

C1_BUF_CLS(Clear buffer if connected)

Command format	Parameters	Usage
AT+C1_BUF_CLS?	Nil	Read
AT+C1_BUF_CLS=<parameter>	<parameter>: 0: Do not clear the serial port buffer after establishing a connection (default) 1: Clear the serial port buffer after establishing a connection	Set
Response	[C1_BUF_CLS] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_BUF_CLS=1\r\n* *Response: [C1_BUF_CLS] Value is: 1\r\nOK\r\n*	

Command description: The module is effective when running in TCP mode and data transparent mode. If the connection suddenly disconnects during data exchange, there maybe some data in the serial buffer that has not been sent. This command can be used to determine whether to send this data after the connection is reestablished.

C1_SER_LEN(Serial packaging length)

Command format	Parameters	Usage
AT+C1_SER_LEN?	Nil	Read
AT+C1_SER_LEN=<parameter>	<parameter>: The value range is: 0 ~ 2048 bytes, default: 0 (not specified Package)	Set
Response	[C1_SER_LEN] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_SER_LEN=10\r\n* *Response: [C1_SER_LEN] Value is: 10\r\nOK\r\n*	

Command description: This command sets the package length for each data transmission. The command is valid when running in data transmission mode.

C1_SER_T(Serial data packing Nagle wait time)

Command format	Parameters	Usage
AT+C1_SER_T?	Nil	Read
AT+C1_SER_T=<parameter>	<parameter>: Value range: 0 ~ 60000, default: 0 (not subcontracted), unit: ms	Set
Response	[C1_SER_T] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_SER_T=1000\r\n* *Response: [C1_SER_T] Value is: 1000\r\nOK\r\n*	

Command description: This command sets the serial waiting time. After the waiting time passes, it

gathers all the data and transmit in one data package. The module's corresponding serial channel number is valid when running in data transmission mode.

C1_IT(Inactivity timeout)

Command format	Parameters	Usage
AT+C1_IT?	Nil	Read
AT+C1_IT=<parameter>	<parameter>: The time interval for timeout disconnection, with a value range of: 0 ~ 60000, unit: ms, default: 0 (disable this function)	Set
Response	[C1_IT] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_IT=1000\r\n* *Response: [C1_IT] Value is: 1000\r\nOK\r\n*	

Command description: This command is valid when the module operates in TCP mode and data transparent transmission mode. When WIZ-IP75 works in TCP mode, whether as a server or a client, it may happen that the other party has disconnected (forced disconnection or network failure), but the module is not informed of the disconnection and continues to maintain this invalid connection. In this case, when either party intends to initiate communication, an error that data cannot be delivered will occur.

Setting this parameter enables the TCP connection to be disconnected when no new data is received through the serial port or Ethernet interface within a continuous timeout period during communication using the TCP protocol. When this value is set to 0, it means the TCP connection will never be disconnected.

C1_TCPAT(TCP keepalive interval)

Command format	Parameters	Usage
AT+C1_TCPAT?	Nil	Read
AT+C1_TCPAT=<parameter>	Value range: 0 ~ 255, unit: 5s Default: 0 (disable)	Set
Response	[C1_TCPAT] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_TCPAT=1\r\n* *Response: [C1_TCPAT] Value is: 1\r\nOK\r\n*	

Command description: This command is valid when the module operates in TCP mode and data transparent transmission mode. When communicating using the TCP protocol, after each data transmission or receive, the WIZ-IP75 will send a "heartbeat detection packet" to the other party within a fixed time period to test if the connection exists. If no response is received after sending the "heartbeat detection packet", the module will automatically disconnect.

C1_LINK_P(TCP password authentication)

Command format	Parameters	Usage
AT+C1_LINK_P?	Nil	Read
AT+C1_LINK_P=<parameter>	0: Disable (Default) 1: Enable	Set
Response	[C1_LINK_P] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_LINK_P=1\r\n* *Response: [C1_LINK_P] Value is: 1\r\nOK\r\n*	

Command description: This command is valid when the module operates in TCP Server mode and data transparent transmission mode. To enhance communication security, the WIZ-IP75 module provides a "connection password verification" function. When the module acts as a TCP Server to communicate with a client, if the "connection password verification" function is enabled, the client must send the module's password as the first data packet after establishing a connection with the module. If the password is correct, they can start communicate. If the password is incorrect, a prompt will be sent to request re-entering the correct password. The module's password can be queried and set using the "PASS" command.

C1_LINK_T(Connection condition)

Command format	Parameters	Usage
AT+C1_LINK_T?	Nil	Read
AT+C1_LINK_T=<parameter>	0: Connect when power on (default) 1: Connect when receiving data from serial	Set
Response	[C1_LINK_T] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_LINK_T=1\r\n* *Response: [C1_LINK_T] Value is: 1\r\nOK\r\n*	

Command description: This command is valid when the module operates in TCP Client mode and data transparent transmission mode. It is used to configure the conditions under which the module establishes a connection with the TCP Server. When configured as "Establish connection after serial port receives data", the module will not initiate a connection to the server. It will only send a connection request to the server immediately after the module's serial port receives the first data packet. After the connection is successful, the module's serial port will send the first data packet to the server and start the normal data transparent transmission.

C1_LINK_M(Send Hello Message)

Command format	Parameters	Usage
AT+C1_LINK_M?	Nil	Read
AT+C1_LINK_M=<parameter>	0: Disable (Default) 1: Send Device ID 2: Send MAC address 3: Send IP address	Set
Response	[C1_LINK_M] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+C1_LINK_M=1\r\n* *Response: [C1_LINK_M] Value is: 1\r\nOK\r\n*	

Command description: The command is valid in TCP Client mode, and is valid in both data transparent mode and AT command transmission data mode. This command is used to configure the information that the module sends immediately after the connection is established.

7.5.4 Management commands

C1_SEND_NUM(Number of bytes sent via serial port)

Command format	Parameters	Usage
AT+C1_SEND_NUM?	Nil	Read
Response	[C1_SEND_NUM] Value is: <value>\r\nOK\r\n Display range: 0 ~ 4294967295	
Example	*Command: AT+C1_SEND_NUM?\r\n* *Response: [C1_SEND_NUM] Value is: 2048\r\nOK\r\n*	

Command description: This command is valid in either data transparent transmission mode or AT command data transmission mode.

C1_RCV_NUM(Number of bytes received via serial port)

Command format	Parameters	Usage
AT+C1_RCV_NUM?	Nil	Read
Response	[C1_RCV_NUM] Value is: <value>\r\nOK\r\n Display range: 0 ~ 4294967295	
Example	*Command: AT+C1_RCV_NUM?\r\n* *Response: [C1_RCV_NUM] Value is: 2048\r\nOK\r\n*	

Command description: This command is valid in either data transparent transmission mode or AT command data transmission mode.

C1_NETSEND(Number of bytes sent via network port)

Command format	Parameters	Usage
AT+C1_NETSEND?	Nil	Read
Response	[C1_NETSEND] Value is: <value>\r\nOK\r\n Display range: 0~4294967295	
Example	*Command: AT+C1_NETSEND?\r\n* *Response: [C1_NETSEND] Value is: 2048\r\nOK\r\n*	

Command description: This command is valid in either data transparent transmission mode or AT command data transmission mode.

C1_NETRCV(Number of bytes received via network port)

Command format	Parameters	Usage
AT+C1_NETRCV?	Nil	Read
Response	[C1_NETRCV] Value is: <value>\r\nOK\r\n Display range: 0 ~ 4294967295	
Example	*Command: AT+C1_NETRCV?\r\n* *Response: [C1_NETRCV] Value is: 2048\r\nOK\r\n*	

Command description: This command is valid in either data transparent transmission mode or AT command data transmission mode.

PRE(List preset values)

Command format	Parameters	Usage
AT+PRE?	Nil	Read

Response

Response:

DEFAULT:

[NAME]: WIZ-IP75
[PASS]: admin
[IP]: 192.168.1.88
[MASK]: 255.255.255.0
[GATEWAY]: 192.168.1.1
[DNS]: 114.114.114.114
[WEB_PORT]: 80
[DOMAIN]: www.w5500.com
[C1_PORT]: 5000
[C1_BAUD]: 11
[C1_DATAB]: 1
[C1_PARITY]: 0
[C1_STOPB]: 0
[C1_SER_C]: 0
[C1_SER_T] : 0
[C1_SER_LEN]: 0
[C1_CLI_IP1]: 192.168.1.99
[C1_CLI_PP1]: 5000

CURRENT:

[NAME] : WIZ-IP75
[PASS]: admin
[IP]: 192.168.1.88
[MASK]: 255.255.255.0
[GATEWAY]: 192.168.1.1
[DNS]: 114.114.114.114
[WEB_PORT]: 80
[DOMAIN]: www.w5500.com
[C1_PORT] 5000
[C1_BAUD]: 11
[C1_DATAB]: 1
[C1_PARITY]: 0
[C1_STOPB]: 0
[C1_SER_C]: 0
[C1_SER_T] : 0
[C1_SER_LEN]: 0
[C1_CLI_IP1]: 192.168.1.99
[C1_CLI_PP1]: 5000

OK

RUNTIME(Module uptime)

Command format	Parameters	Usage
AT+RUNTIME?	Nil	Read
Response	[RUNTIME] Value is: <value>\r\nOK\r\n Format: ddd-hh-mm-ss Display range: 000-00-00-00 ~ 999-23-59-59	
Example	Command: AT+RUNTIME?\r\n Response: [RUNTIME] Value is: 003-15-38-42\r\nOK\r\n	

VER(Firmware version)

Command format	Parameters	Usage
AT+VER?	Nil	Read
Response	[VER] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+VER?\r\n* *Response: [VER] Value is: V1.0\r\nOK\r\n*	

MAC(MAC address)

Command format	Parameters	Usage
AT+MAC?	Nil	Read
Response	[MAC] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+MAC?\r\n* *Response: [MAC] Value is: 00.08.DC.11.12.13\r\nOK\r\n*	

SN(Serial number)

Command format	Parameters	Usage
AT+SN?	Nil	Read
Response	[SN] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+SN?\r\n* *Response: [SN] Value is: 20190102-111213\r\nOK\r\n*	

TYPE(Module part numbe)

Command format	Parameters	Usage
AT+TYPE?	Nil	Read
Response	[TYPE] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+TYPE?\r\n* *Response: [TYPE] Value is: WIZ-IP75\r\nOK\r\n*	

WEB_PORT(Web configuration port number)

Command format	Parameters	Usage
AT+WEB_PORT?	Nil	Read
AT+WEB_PORT=<parameter>	Range: 1 ~ 65,535, Default: 80	Set
Response	[WEB_PORT] Value is: <value>\r\nOK\r\n	
Example	*Command: AT+WEB_PORT=80\r\n* *Response: [WEB_PORT] Value is: 80\r\nOK\r\n*	

Command description: This port number is used by users to access WIZ-IP75 for web page configuration using a browser, and it is not recommended to modify it. If configured with any port number other than 80, when accessing WIZ-IP75 through a browser, the address bar should enter "IP: Port", for example: 192.168.1.88:8000.

Note: Some protocols in the Ethernet protocol have default port numbers, which should be avoided. The default occupied port numbers are shown in the appendix.

7.6 Detailed description of AT data transmission command

LINK (Detect PHY link status)

Command format	Parameters	Usage
AT+LINK?	Nil	Execute
Response	[LINK] Value is: <value>\r\nOK\r\n 0: no PHY link 1: has PHY link	
Example	*Command: AT+LINK?\r\n* *Response: [LINK] Value is: 1\r\nOK\r\n*	

LISTEN(Listening on TCP)

Command format	Parameters	Usage
AT+C1_LISTEN	Nil	Execute
Response Description	OK\r\n Upon successful completion	
Response Description	<Error Info>\r\n Module is not in TCP server mode	
Example	*Command: AT+LISTEN\r\n* *Response: OK\r\n*	

Command description: The command is valid in TCP Server mode, which means the command can only be configured correctly when the "C1_OP" command parameter is "0", otherwise an error will be reported. It can be closed through the "DISCON" command.

Note: After configuring this command, it is necessary to check whether the TCP connection has been established through the "C1_TCP_STATUS" command.

CONNECT(Initiating TCP connection)

Command format	Parameters	Usage
AT+CONNECT	Nil	Execute
Response Description	OK\r\n Upon successful completions	
Response Description	<Error Info>\r\n Module is not in TCP client mode	
Example	*Command: AT+CONNECT\r\n* *Response: OK\r\n*	

Command description: The command is valid in TCP Client mode. This command can only be configured correctly when the parameter of the "C1_OP" command is "1"; otherwise, an error will be reported. After configuring this command, the module immediately initiates a connection request to the TCP Server. If the TCP connection is not established after 3 seconds, an error will be reported.

Note: After configuring this command, it is necessary to check whether the TCP connection has been established through the "TCP_STATUS" command.

TCP_STATUS(TCP connection status)

Command format	Parameters	Usage
AT+TCP_STATUS?	Nil	Read
Response Description	[C1_TCP_STATUS] Value is: <value>\r\nOK\r\n 0: TCP not connected 1: TCP Connected	
Example	*Command: AT+TCP_STATUS?\r\n* *Response: [C1_TCP_STATUS] Value is: 1\r\nOK\r\n*	

Command description: This command is valid when the module is running in both TCP Server and TCP Client modes, and can be used to check whether the TCP connection has been established.

UDP(Establish UDP connection)

Command format	Parameters	Usage
AT+C1_UDP	Nil	Execute
Response Description	OK\r\n Upon successful completions	
Response Description	<Error Info>\r\n Module is not in TCP client mode	
Example	*Command: AT+UDP\r\n* *Response: OK\r\n*	

Command description: The command is valid in UDP mode. This command can only be configured correctly when the parameter of the "C1_OP" command is "2", otherwise an error will be reported.

SEND(Send byte of data)

Command format	Parameters	Usage
AT+C1_SEND=<parameter>	Range: 0 ~ 2048 (bytes) Default: 0 (any length)	Set
Response	[SEND] Value is: <value>\r\nOK\r\n Set the length of data to be sent	
Example1	*Assuming the module is in TCP mode and the TCP connection is normal* *Command: AT+TCP_STATUS?\r\n* *[C1_TCP_STATUS] Value is: 1\r\nOK\r\n* *Command: AT+C1_SEND=5\r\n* *Response: [C1_SEND] Value is: 5\r\nOK\r\n* *Then send data via serial: 12345* *Response: 5*	
Example2	*Assume module is in TCP mode and TCP connection is not connected* *Command: AT+TCP_STATUS?\r\n* *[TCP_STATUS] Value is: 0\r\nOK\r\n* *Command: AT+SEND=5\r\n* *Response: [SEND] Value is: 5\r\nOK\r\n* *Sending data to module serial port: 12345* *Response: 0*	

Command description:

1. If the module is operating in TCP Server or TCP Client mode, it is necessary to check whether the TCP connection has been established before configuring this command. Please refer to the "TCP_STATUS" command.
2. After successfully configuring this command, the serial port will receive the corresponding return value. Any character sent to the module's serial port next time will be sent as data. After sending all the data, it will exit data transmission and re-enter to AT command mode.
3. If the specified transmission length is 0, the serial port will package data with a default frame interval of 50ms. Starting from the first byte sent by the serial port, if the serial port remains idle for more than 50ms thereafter, the data will be sent immediately. If the continuous byte length of the serial port reaches 2048, the excess part will be automatically discarded.
4. If the specified transmission length is not 0, that is, the serial port packages data by length, the characters of the specified length sent to the module's serial port will be packaged and sent immediately. If the length exceeds the specified value, the excess part will be automatically discarded; if it is less than the specified length, it will wait indefinitely.
5. After the data is successfully sent from the module's network port, the module's serial port will

immediately output a reply message in the format: "<len>", where <len> is the number of bytes of data successfully sent through the module's network port. Users can use this to determine whether their data has been successfully sent.

RLEN(Number of bytes pending receipt)

Command format	Parameters	Usage
AT+RLEN?	Nil	Read
Response Description	[C1_RLEN] Value is: <value>\r\nOK\r\n Range: 0 ~ 2048	
Example	*Data to be received: abcdef* *Command: AT+RLEN?\r\n* *Response: [RLEN] Value is: 6\r\nOK\r\n*	

Command description: Query the Byte Length of Pending Data in the Network Port Receive Buffer for the Corresponding Channel

RCV(Receive data)

Command format	Parameters	Usage
AT+RCV=<parameter>	Range: 0 ~ 2048 Default: 0 (Whatever length)	Set and execute
Response	[C1_RCV] Value is: <value>\r\nOK\r\n<data>	
Example	*Data to be received: abcdef* *Command: AT+RCV=0\r\n* *Response: [RCV] Value is: 6\r\nOK\r\nabcdef*	

Command description:

1. If the module is operating in TCP Server or TCP Client mode, it is necessary to check whether the TCP connection has been established before configuring this command. Please refer to the "TCP_STATUS" command.
2. After successfully configuring this command, the module's serial port will output the data in the network port's receive buffer, then exit data receive and enter AT command mode.
3. The network port's receive buffer size is 2048 bytes. If the total length of data in the network port's receives buffer reaches 2048 bytes, the network port will stop receiving further data.
4. If the length of data in the network port's receive buffer is less than the specified length set by the "RCV" command, no data will be received, meaning the number of received data bytes will be 0.

CLEAR(Clear the network receiving buffer)

Command format		Parameters	Usage
AT+CLEAR		Nil	Execute
Response	OK\r\n		
Example	*Command: AT+CLEAR\r\n* *Response: OK\r\n*		

Command description: If the module does not need the data in the network port receiving buffer, this command can be used to clear it.

DISCON(Disconnect)

Command format		Parameters	Usage
AT+DISCON		Nil	Execut
Response	OK\r\n		
Example	*Command: AT+DISCON\r\n* *Response: OK\r\n*		

Command description: Close the TCP or UDP connection.

7.7 AT command script examples

7.7.1 TCP server mode script example

AT\r\n	*//Terminal detection*
OK\r\n	
AT+DEBUGMSGEN=0\r\n	*//Close serial port debugging information*
[DEBUGMSGEN] Value is: 0\r\nOK\r\n	
AT+ECHO=0\r\n	*//Turn off echo display*
[ECHO] Value is: 0\r\nOK\r\n	
AT+START_MODE=1\r\n	*//Configure the next boot run mode to be data transmission mode*
[START_MODE] Value is: 1\r\nOK\r\n	
AT+C1_OP=0\r\n	*//Configure the working mode to TCP Server*
[C1_OP] Value is: 0\r\nOK\r\n	
AT+IP_MODE=0\r\n	*//Configure as a static IP*
[IP_MODE] Value is: 0\r\nOK\r\n	
AT+IP=192.168.1.88\r\n	*//Configure local IP address*
[IP] Value is: 192.168.1.88\r\nOK\r\n	
AT+C1_PORT=5000\r\n	*// Configure local port number*
[C1_PORT] Value is: 5000\r\nOK\r\n	
AT+RESET=admin\r\n	*//Save configuration, the module will enter data transmission mode after restart*
OK\r\n	

7.7.2 TCP client AT command mode script example.

AT\r\n	*//Terminal detection*
OK\r\n	
AT+DEBUGMSGEN=0\r\n	*//Close serial port debugging information*
[DEBUGMSGEN] Value is: 0\r\nOK\r\n	
AT+ECHO=0\r\n	*//Turn off echo display*
[ECHO] Value is: 0\r\nOK\r\n	
AT+START_MODE=0\r\n	*//Configure the next startup run mode to AT command mode*
[START_MODE] Value is: 0\r\nOK\r\n	
AT+C1_OP=1\r\n	*//Configure the working mode to TCP Client*
[C1_OP] Value is: 1\r\nOK\r\n	
AT+IP_MODE=1\r\n	*//Configure the module to DHCP mode*
[IP_MODE] Value is: 1\r\nOK\r\n	
AT+DNSEN=0\r\n	*//Disable DNS function*
[DNSEN] Value is: 0\r\nOK\r\n	
AT+C1_CLI_IP1=192.168.1.99\r\n	*//Configure remote TCP server IP address*
[C1_CLI_IP1] Value is: 192.168.1.99\r\nOK\r\n	
AT+C1_CLI_PP1=5000\r\n	*//Configure remote TCP server port number*
[C1_CLI_PP1] Value is: 5000\r\nOK\r\n	
AT+SAVE\r\n	*//Save configuration Information;*
OK\r\n	
AT+C1_CONNECT\r\n	*//Initiate a connection request to a remote TCP server*
OK\r\n	
AT+C1_TCP_STATUS?\r\n	*//Query TCP connection status*
[C1_TCP_STATUS] Value is: 1\r\nOK\r\n	
AT+C1_SEND=5\r\n	*//Notify the module that 5 bytes of data will be sent*
OK\r\n	
Seial sends data: 12345	

Serial receives data: 5

TCP server sends data: abcdef

AT+C1_RLEN?\r\n *//Query the length of data to be received*

[C1_RLEN] Value is: 6\r\nOK\r\n

AT+C1_RCV=6\r\n *//Receive All*

[C1_RCV] Value is: 6\r\n

OK\r\n

abcdef

AT+C1_CLEAR\r\n *//Clear the network port receiving cache*

OK\r\n

AT+C1_DISCON\r\n *// Close TCP connection*

OK\r\n

8 Web configuration

WIZ-IP75 supports web page configuration. We recommend using Chrome or Firefox. Other browsers may have display or functional issues. Let's take Chrome browser as an example to illustrate.

Before using web configuration, it is necessary to ensure that WIZ-IP75 can be accessed correctly. That is, if configuring within a local area network, WIZ-IP75 needs to be on the same network segment as the computer. If configuring remotely, WIZ-IP75 needs to be mapped to a public IP. Taking the local area network as an example for configuration, the specific configuration method is introduced as follows.

8.1 Login page

Open the Chrome browser, enter the WIZ-IP75 module's IP address in the address bar (the factory default is 192.168.1.88), and the login interface shown in the figure below will appear.

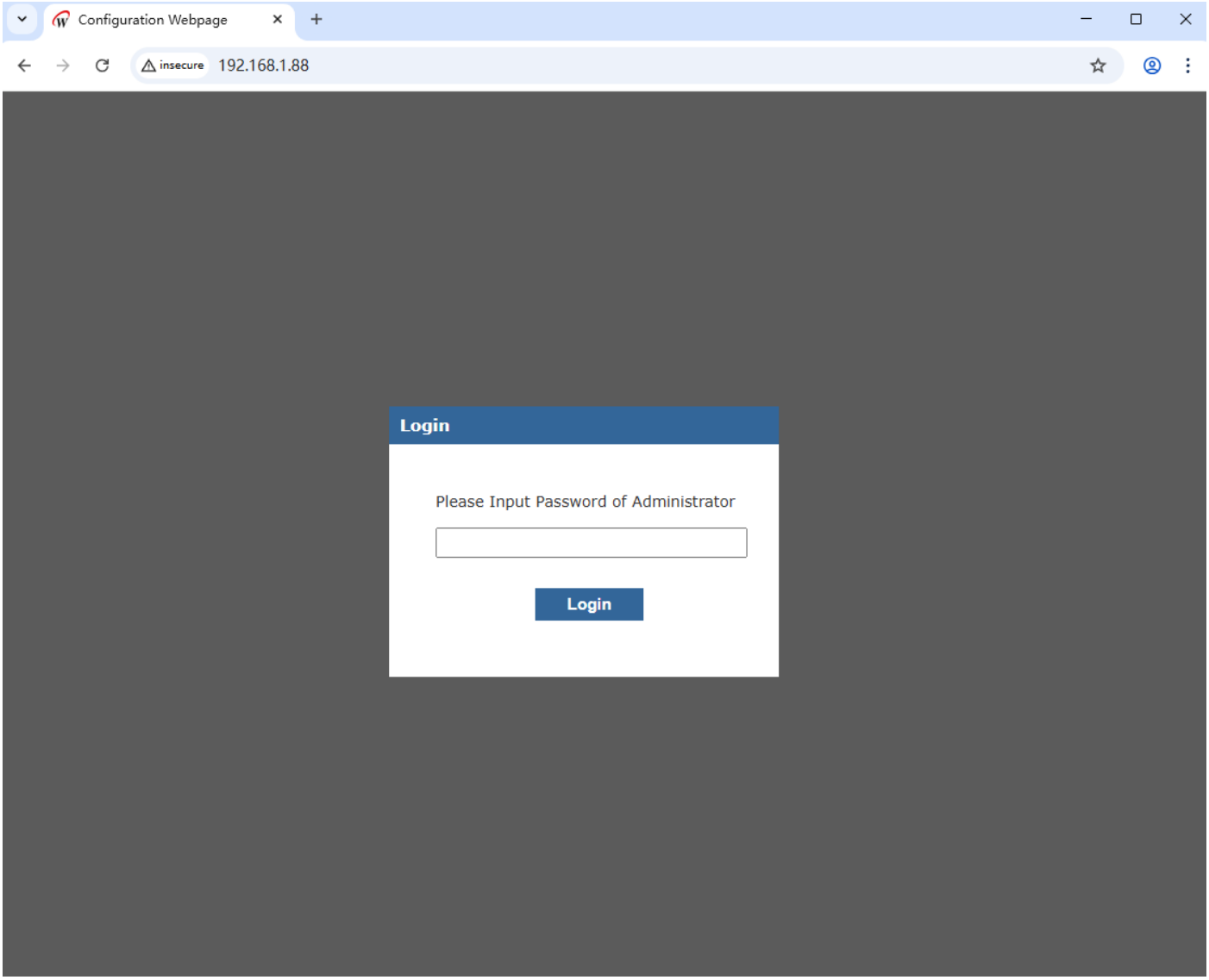


Figure 8-1 Web login interface

The default login password is “**admin**”. Click "Login" to log in and enter the WIZ-IP75 homepage. It should be noted that after logging into the WIZ-IP75 webpage, in order to ensure the security of module information, if the user does not take any action within 5 minutes, they need to log in again, as shown in the following figure.

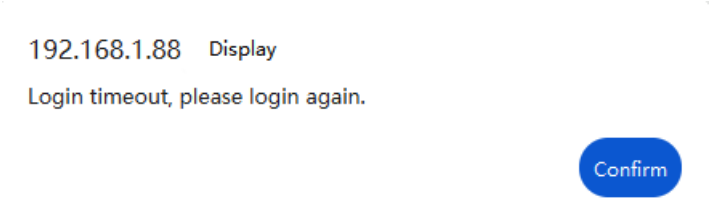


Figure 8-2 Web Prompt - Login Timeout

As shown in the figure below, it is the basic information page after logging in to the WIZ-IP75 configuration page. If you need to log out, click the "Logout" link in the upper right corner. This page provides an overview of the basic configuration information for WIZ-IP75.

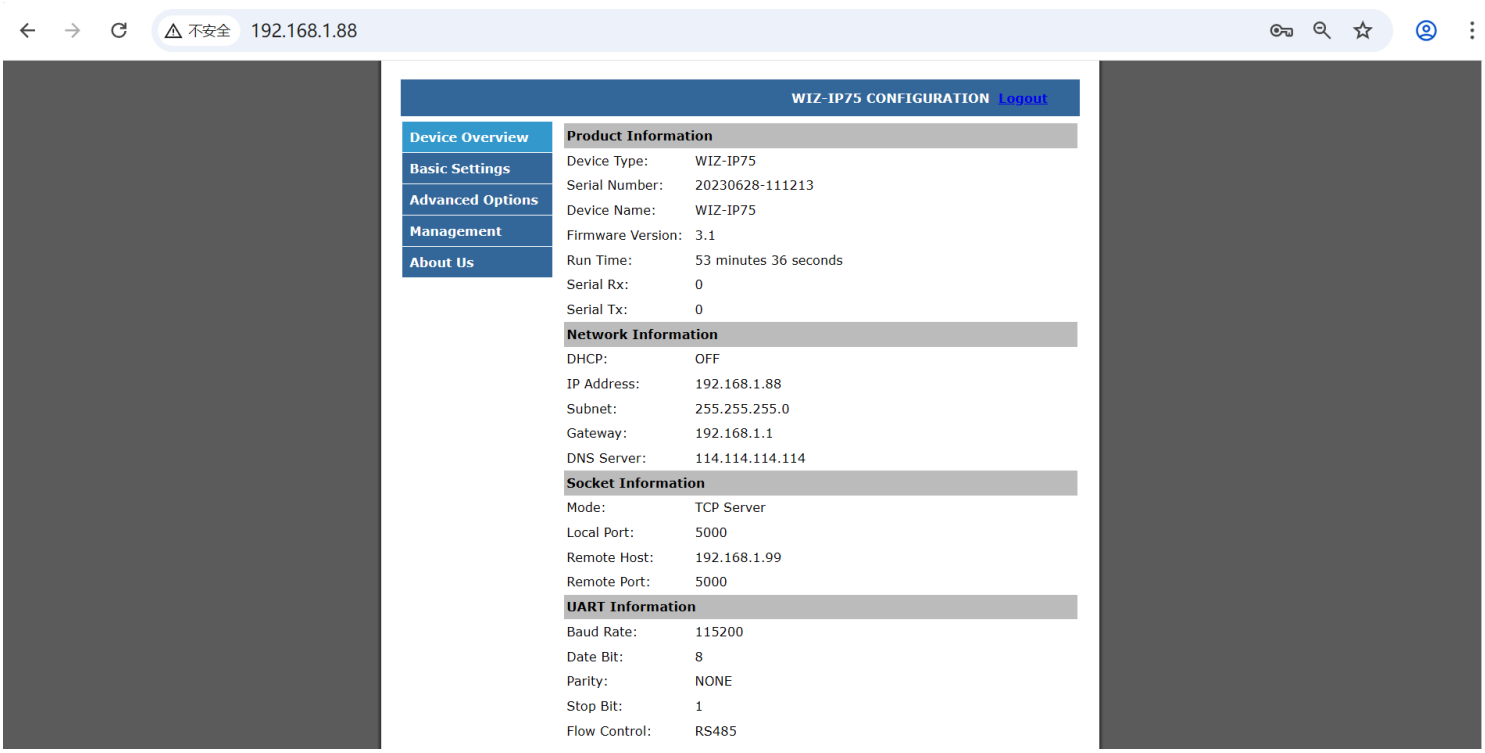


Figure 8-3 Basic Information Page

8.2 Basic settings

As shown in the following figure, it is the WIZ-IP75 basic parameter configuration page,which is divided into five parts for explanation.

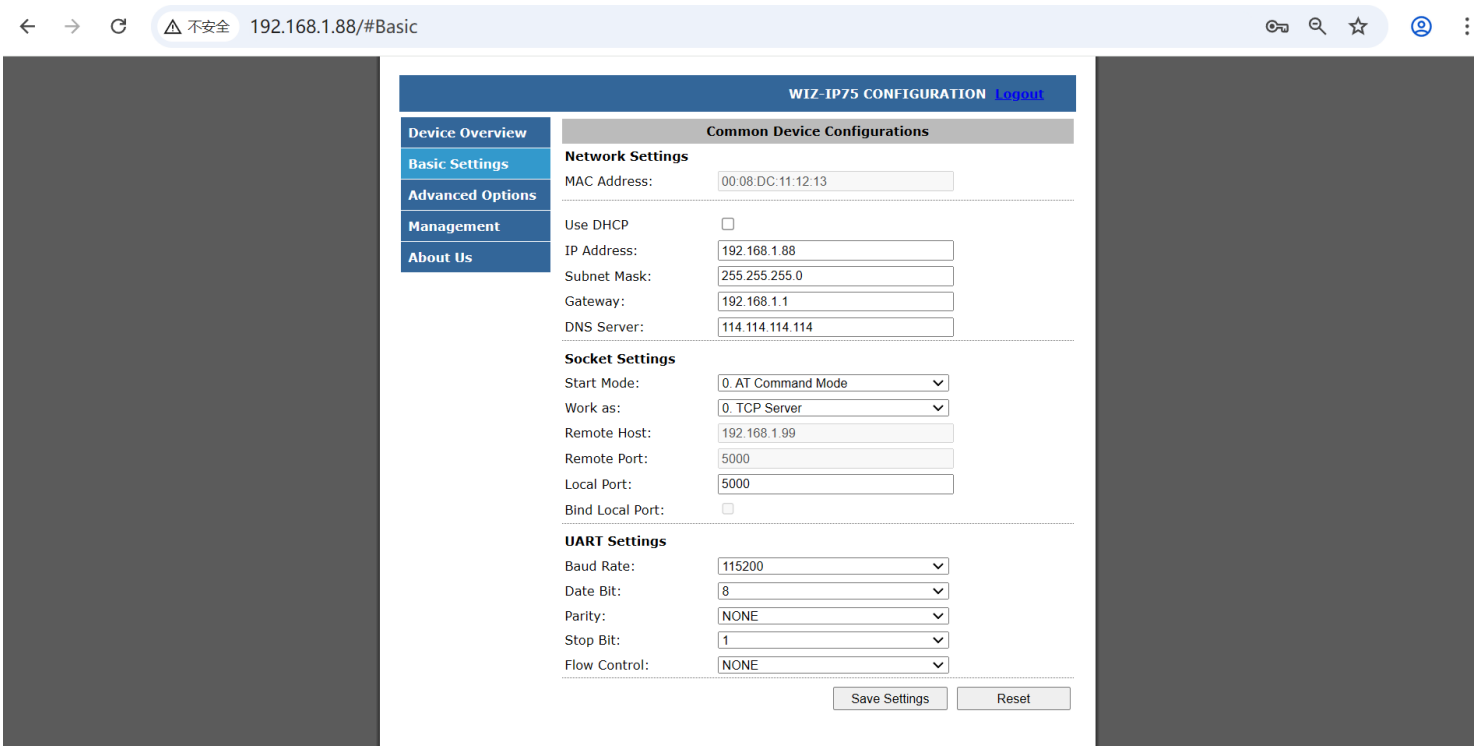


Figure 8-4 Basic Configuration Page

Network setting

MAC Address : Display the module's MAC address;

Use DHCP : Enable the option to dynamically obtain IP addresses. Checking this option will enable this feature;

IP Address: Display/set module IP address, default is 192.168.1.88;

Subnet Mask : Display/set module subnet mask, default is 255.255.255.0;

Gateway : Display/set module gateway, default is 192.168.1.1;

DNS Server : Display/set module DNS server address, default is 114.114.114.114.

Socket Setting

Start Mode: Device startup mode configuration, which can be set to AT command mode and data transmission mode. The WIZ-IP75 will operate in this mode upon the next power-on/reboot;

Work as: Module operation mode configuration, which can be set to TCP Server, TCP Client, and UDP modes;

Remote Host: Displays/sets the IP address/domain name of the remote host. This is effective when the

module is running in TCP Client and UDP modes. The default is 192.168.1.99. If this is set to the domain name of the remote host, the module will automatically perform domain name resolution. The maximum length of the domain name is 32 characters;

Remote Port: Displays/sets the port number of the remote host. The default is 5000, and the range is 0 to 65535;

Local Port: Displays/sets the local port number. The default is 5000, and the range is from 0 to 65535;

Bind Local Port: Binds the local port number. When checked, it enables the function of binding the local port number. This is effective when the module runs in TCP Client mode.

Note: Some protocols in the Ethernet protocol have default port numbers. These port numbers should be avoided. The default occupied port numbers can be found in the appendix appendix.

UART Setting

Baud Rate: Displays/sets the serial port baud rate. The default is 115200. Users can select 16 common baud rate values ranging from 300bps to 460800bps;

Data Bit: Displays/sets the data bits of the serial port. The default is 8. It can be set to 7 or 8;

Parity: Displays/sets the parity bit of the serial port. The default is NONE. It can be set to NONE, ODD, or EVEN;

Stop Bit: Displays/sets the stop bits of the serial port. The default is 1. It can be set to 1 or 2;

Flow Control: Serial port flow control function configuration. The default is NONE. It can be set to NONE or CTS/RTS.

Save Settings: Click the "Save Settings" button. The webpage will indicate that the settings were saved successfully. You need to further click the "Reset" button to restart the module for all configurations to take effect;

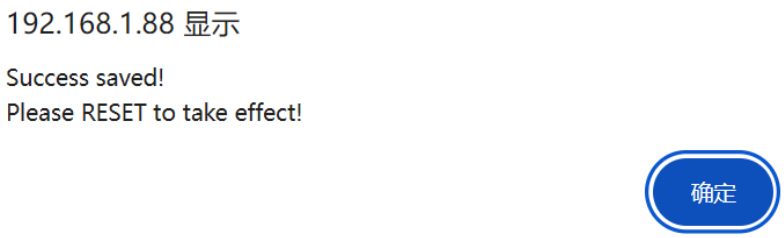


Figure 8-5 Web Prompt - Save Successful

Reset: Reset: Click this button to restart the module. Note that this does not save any unsaved configuration changes. After clicking this button, the webpage will pop up the following dialog box. Click "OK" to restart the module and the webpage will jump to the login interface.

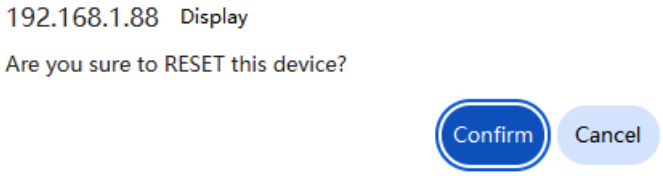


Figure 8-6 Web Prompt - Reset

8.3 Advanced options

As shown in the figure below, it is the advanced configuration page of WIZ-IP75. The following is a detailed explanation:

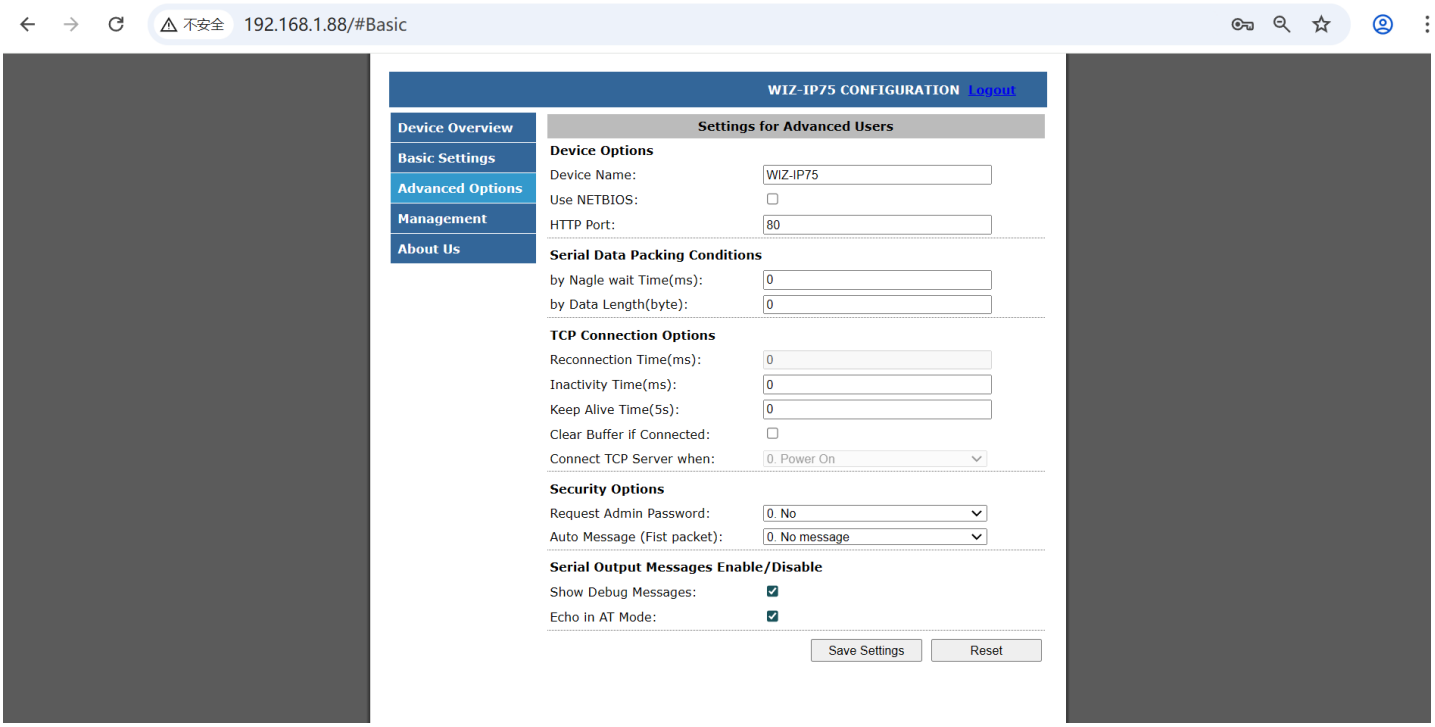


Figure 8-7 User Advanced Configuration Page

Device Options

Device Name: Set/Display the module name. It must consist of numbers, letters, or a combination of both, and cannot be empty. Case sensitivity is applied. The maximum length is 15 bytes;

Use NETBIOS: Enable the NetBIOS function option. When checked, the NetBIOS function will be enabled. By default, it is not enabled. After enabling the NetBIOS function, users can directly access the built-in web page of WIZ-IP75 by entering "http://module name" in the browser address bar;

HTTP Port: Set/Display the port number of the Web server of WIZ-IP75. The default is 80. It is not recommended to change it. The range of values is 0 to 65,535. If not set to 80, then in the browser address bar, it should be entered as "IP:Port", for example: 192.168.1.88:8000.

Serial Data Packing Conditions

by Nagle Waiting Time (ms): This option encapsulates the serial port input data into Ethernet packets at a time interval. The default value is 0 (no packetization), and the maximum value is 60000, with the unit being ms;

by Data Length (byte): This option sets and displays the byte length of the serial port data packets. The device serial port input data is packaged according to the byte length and converted into Ethernet packets for transmission. The default value is 0 (no packetization), and the maximum value is 2048 bytes.

TCP Connection Options - TCP

Reconnection Time (ms): Sets/Displays the reconnection time. This option is effective when the device is in TCP Client mode. It sets the waiting time for the TCP Client to reconnect to the TCP Server after the connection is disconnected. The default value is 0, meaning immediate reconnection. The range of values is from 0 to 60000, with units in ms;

Inactivity Time (ms): The time interval for timeout disconnection. This option is effective when the device is in TCP mode. The range of values is from 0 to 60000, with units in ms. The default value is 0 (this function is disabled);

Keep Alive Time (5s): Online time. This option is effective when the device is in TCP mode. The range of values is from 0 to 65536, with units of 5s. The default value is 0 (this function is disabled);

Clear Buffer if Connect: Whether to clear the serial port Buffer after connection establishment. This option is effective when TCP is used. It can be set as "power on" to establish the connection immediately after power-on (default) or "Serial data received" to establish the connection after receiving data on the serial port.

Security Options

Request Admin Password: This feature is for connection verification password. It is effective when the device is operating in TCP Server mode. If set to "Check Password", after the client sends a connection request and establishes a connection in TCP Server mode, the client needs to send the device password to communicate with WIZ-IP75; otherwise, the connection will be disconnected. The default is "NO" (disable this function);

Auto Message (First Packet): Sends information after connection establishment. It is effective in TCP mode. You can choose "No message" to not send information (default), "Send Device Name" to send the device name, "Send MAC Address" to send the device MAC address, or "Send IP Address" to send the device IP address.

Serial Output Messages Enable/Disable

Show Debug Message: Display module debugging information. Checking this option will print the

module debugging information from the serial port. It is enabled by default;

Echo in AT Mode: Enable the AT command echo function; the echo function means that the WIZ-IP75 module returns the input command exactly as it is to the serial port, and then displays it on the serial port software interface. When users use the serial port software to configure the module, enabling the echo function helps users configure it conveniently; however, when using single-chip microcontrollers or other embedded devices to configure the module, enabling the echo function will cause problems. In this case, the echo function must be turned off. By default, this option is checked to enable the echo function.

8.4 Equipment Management

Click on "Management" to enter the device management page, as shown in the following figure. There are two sections as follows:

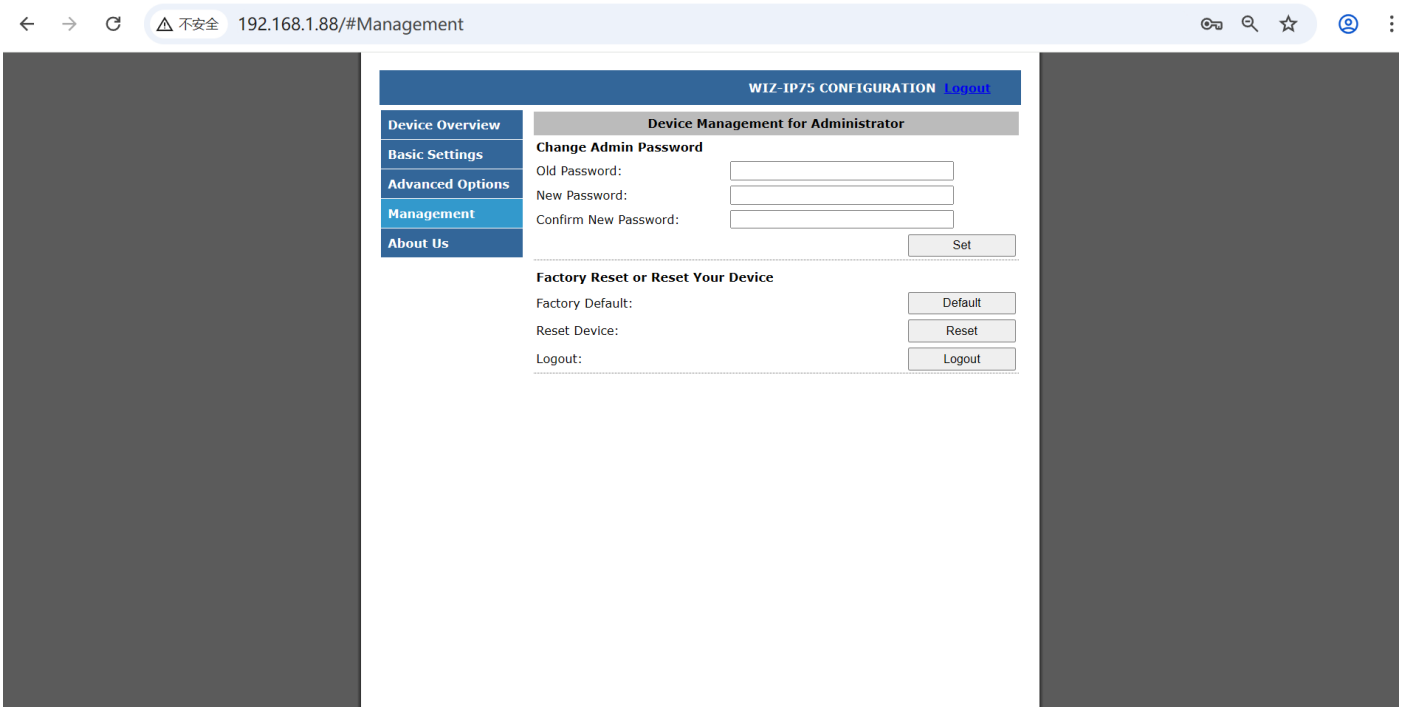


Figure 8-8 Equipment Management Page

Change Admin Password

Old Password: Original module password, default is admin;

New Password: New module password, maximum length is 15 bytes, must be a combination of numbers, letters, or a mixture of both, and cannot be left blank;

Confirm Password: New module password confirmation;

Set: Confirmation button for setting. When the original module password is entered correctly and the new module password is correct, the page will prompt that the password has been successfully modified, as shown in the following picture. Click "OK" to jump to the login page.

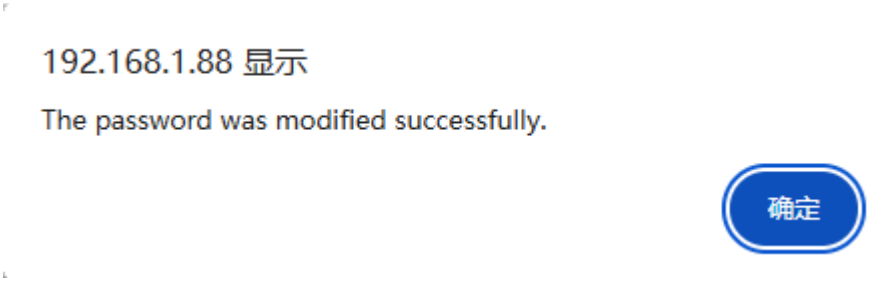


Figure 8-9 Webpage message - Module password modification successful

Factory Reset or Reset Your Device

Factory Default: The "Restore Factory Settings" button. When clicked, the page prompts whether to restore the module to its factory settings. As shown in the picture below, click "OK" and the module will perform the factory reset and then jump to the login page;

Figure 8-10 Webpage prompt - Restore factory settings

Reset Device: Reset Module Button;

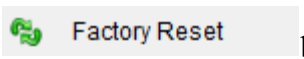
Logout: Logout Button.

9 Restore factory settings

The WIZ-IP75 offers three methods for resetting to factory settings: software method, AT command method, and web page method.

9.1 Upper computer software mode

Firstly, click the left mouse button in the module list of WIZS2E Config Tool software to select the module that needs to be restored, and then click the 

→ 

button in the toolbar to factory Reset.

9.2 AT command mode

Please refer to Chapter 7 for the "DEFAULT" command.

9.3 Web page format

Please refer to Chapter 8.4 for an introduction to the module management interface.

10 Firmware upgrade

The WIZ-IP75 supports firmware upgrades via the host computer tool (WIZS2E ConfigTool). The following is the detailed explanation.

Note: The firmware referred to below must be the bin firmware of WIZ-IP75 provided by WIZnet HK officially.

10.1 Firmware upgrade by WIZS2E ConfigTool

First, ensure the WIZ-IP75 is on the same network segment as your computer. Open the serial port debugging tool for real-time viewing of printed debugging information for the serial port. After searching for WIZ-IP75, click the "Upload Firmware" button and select the firmware, as shown in the following figure.

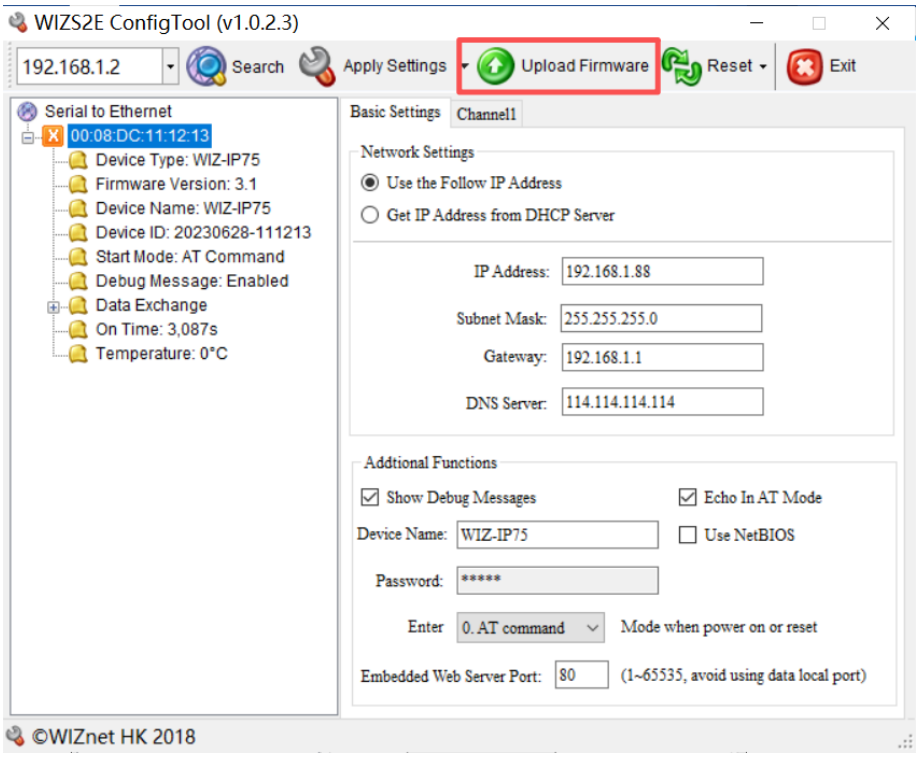


Figure 10-1 Firmware upgrade via WIZS2E ConfigTool

As shown in the figure below, the firmware upgrade is complete.

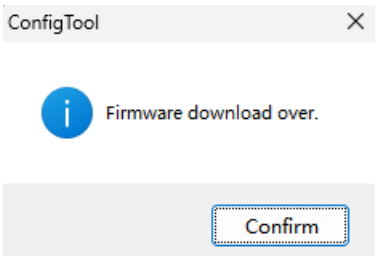


Figure 10-2 Upper Computer Prompt - Firmware Upgrade Completed

11 Appendix

11.1 Default List of Reserved Ports in Ethernet Protocols

Protocol	Port
Reserve	0
TCP port multi-channel server	1
Reserve	2
ECHO	7
Reserve	9
Reserve	11
Reserve	13
Network Status	15
FTP	20
FTP	21
TELNET	23
SMTP	25
Printer	35
Time server	37
Name server	42
Reserve	43
Login Host Protocol	49
DNS	53
DHCP	67
DHCP	68
TFTP	69
Gopler	70
Finger	79
HTTP	80
Remote TELNET	107
SUN	111
NNTP	119
NTP	123
SNMP	161
SNMP	162
IPX	213
Reserve	160 ~ 223

Product Repair Procedure

WIZnet HK promises to provide a one-year free warranty service for WIZ-IP75 equipment. Within one year from the date of purchase of WIZ-IP75 equipment, if there are any product quality problems during normal use, users can repair them through the following procedures:

1 Provide proof of purchase.

2 Obtain repair permit from WIZnet HK or distributor.

3 Complete the product problem report form, providing as much detail as possible about the reason for the repair and the malfunction symptoms to help reduce repair time.

4 Pack the equipment, send it to the designated repair address, and attach the product problem report form.

The following are not covered by the warranty. For damages caused to the product that are not covered by the warranty, we will only charge the cost of the components appropriately:

1 Damage to the product caused by human or force majeure factors.

2 Unable to provide proof of product purchase.

3 products with a warranty period exceeding one year.

Product Problem Report Form

Corporate name			
Contacts		Contact Number	
Email		purchasing date	
PRODUCT MODEL		serial number	
notes			

Problem description: (Please provide a detailed description of the problem that occurred and list all the error messages you have seen in detail)

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WIZ-IP75 modules are high-tech products that may contain certain design defects or undiscovered errors. Once discovered, they will be included in the errata and may result in differences between the product and published specifications. If requested by the customer, the latest errata sheet can be provided.

Before ordering products, please purchase from WIZnet HK or designated distributor through the contact information provided on the "Sales and Service" page of this document and obtain the latest specifications.

For more relevant information, please visit the official website of WIZSE S2E at:https://wizse.com/

Declaration

Application Information

The examples and use cases in this application information are for illustrative purposes only. They are intended to help users familiarize themselves with the product's features and operation. Customers must make modifications and validate based on the characteristics of their product before developing it.

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