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# **Getting Started with WIZ550SR**

This document was created based on usage using WIZ550SR-EVB.

## Unpacking the WIZ550SR EVB



WIZ550SR-EVB package is made up of the following components.

- WIZ550SR 1EA
- WIZ550SR-EVB 1EA
- Cat5, Ethernet Cable 1EA
- Micro USB B Type Cable 1EA



Make sure that the WIZ550SR are assembled as shown above.

## **Prerequisites for Setup**

## Software

- Virtual COM Port USB Driver.(Download page)
- WIZnet Configuration Tool.(Download page)
- TCP server / TCP client / UDP terminal program.
- Serial Terminal Program.

## Hardware

- Your WIZ550SR module and Evaluation board
- Ethernet cable
- Micro USB B Type Cable
- Such as 5V DC adapter, USB port on your computer, or 3.3V Power source

## **Connect Your WIZ550SR**

## WIZ550SR Factory Settings

Category	Item	Value
Network	Local IP	192.168.77.100
	Local Gateway	192.168.77.1
	Local Subnet	255.255.255.0
	Local Port	5000
	Remote Port	5000
	Working Mode	TCP Server
	Inactivity	0
	Reconnection	1000
	Baud Rate	115200
	Data Bits	8
	Parity	NONE
	Stop Bits	1
	Flow	NONE
Data IIART	AT Command USE	Enable
	Trigger Code	2B/ 2B / 2B
	Packing Condition Time	0
	Packing Condition Size	0
	Delimeter Length	0
	Delimeter	2D / 2D / 2D / 2D
	Delimeter Appendix	0
	Baud Rate	115200
	Data Bits	8
Debug UART	Parity	NONE
	Stop Bits	1
	Flow	NONE
	Module Name	WIZ550SR
	Setting Password	WIZnet
Ontions	Connection Password	WIZnet
Options	DHCP USE	Disable
	DNS USE	Disable
	DNS Server IP	8.8.8.8

• Operation mode: **TCP server mode** 

- Debug message: **Enabled**
- Serial command mode switch: **Enabled**
- Serial command mode switch code: +++ (hex code, [2B][2B][2B])

## **PC Settings**

Double check that the WIZ550SR and the PC, or laptop you are using to set up WIZ550SR with are both on the same Ethernet network.

### **Example: PC Network Settings**

\* When the WIZ550SR's settings are factory default,

Network Settings (=	PC or laptop	IP address	192.168.77.101	-
		Gateway address	192.168.77.1	-
	(= Remote)	Subnet mask	255.255.255.0	-
		Port number	5000	-

- User should to matching the network settings of 'WIZ550SR's remote host' and 'PC (or laptop)' for testing TCP mode.
- If the DHCP(automatic IP allocation) is used, both the WIZ550SR and test PC must be set to be assigned the same IP from the same router.

## **Connecting Steps**

## Step 1 : USB Driver Installation

Your PC should be installed USB Driver for use to WIZ550SR-EVB.

- WIZ550SR-EVB connects to a PC using a USB B Type Cable.
- Connect the RJ-45 connector of WIZ550SR-EVB and an RJ-45 connector of the PC using an Ethernet cable.
- Once the connected should be installed the USB Driver.(Download page)
- By running the Device Manager, check that the created two USB Serial Port.



- Control Panel > System > Device Manager
- During the two USB Serial Port, Lower number port is data UART, higher number port is Debug UART.
  - ex) USB Serial Port(COM8) : Main UART It is the port that Data is input and output.
  - ex) USB Serial Port(COM9) : Debug UART It is the port that Debug message is output.

### Step 2 : Power Input

Check the initial state of WIZ550SR-EVB.

- On to the power SW of the WIZ550SR-EVB.
- Check the Power LED(Red LED) Check the Power input.
  - LD3 of WIZ550SR : On
  - $\circ~$  LD4 of WIZ550SR : On
- Check the Working LED(Green LED) Check the operation state of WIZ550SR.
  - LD1 of WIZ550SR : Blink
- Check the Ethernet LED(Green LED) Check the state of network.
  - LD2 of WIZ550SR: Blink
  - LD3 of WIZ550SR : On

### Step 3 : Search & Debug Message

Run the Configuration tool on your PC, click the Search button at the top. If power is being input to the board and connected to the network is in operation, The MAC address and setting of WIZ550SR modules can be found in the Configuration tool.

실 WIZnet Configuration Tool Version	1.03		- 🗆 X
List of Modules	Network Setting	Serial Setting	Options Setting
WIZnet	IP 192.168.77.100	Baud Rate 115200 -	WIZ550SR
00:08:DC:50:3B:CF	Gateway 192.168.77.1	Data Bits 8	Password
	Subnet 255.255.255.0	Parity None 💌	Setting Password
	Port	Stop Bits 1	Connection Password
	Local Port 5000	Flow None 💌	WIZnet
	Remote Port 5000	AT Command	DHCP
	Working Mode	✓ Enable	Use DHCP
	○ TCP Client	Trigger Code (in HEX)	DNS
	TCP Server	2B 2B 2B	Use DNS
	C TCP Mixed	Packing Conditions	DNS Server IP
	⊖ UDP	Time(ms) 0	8.8.8.8
Search Method	Timer	Size(byte) 0	Domain
Broadcast	Inactivity		
O IP Address	0 Seconds		
O MAC Address	Reconnection		
	1000 ms	Append U	
	Firmware Version	Network Status	
	1.0.0	Disconnected	
Searc	ch Setting F/W Uploading	Reset Factory Reset	Exit

Run a serial terminal program of the PC, connect to the serial port of WIZ550SR Debug UART. When power is input to the board, you can check the Debug Message, such as the photo below.

📉 *COM9@115200,8,n,1 - Token2Shell			—		×	
<u>S</u> ession <u>V</u> iew <u>T</u> ools <u>H</u> elp			0	Docume	ents -	
i 🐖 🏠 →   9,115200,8,n,1	- Serial(COM) Port - 🕞 🔯	🖲 🚨 🚂	не× 脉		<u>ت</u>	
COM9@115200,8,n,1 ×					_	•
<pre>&gt; COM Port : COM9 &gt; Baud Rate : 115200 &gt; Data Bits : 8 &gt; Parity : None &gt; Stop Bits : 1 &gt; Flow Control : None Connected to COM9.</pre>						
Bootloader started						
Application started						
WIZnet WIZ550SR Revision 1.0 Embedded Serial to Ethernet Module Firmware Version 1.0.0						
# Device Name : WIZ550SR						
<pre>[APP] MAC: 00:08:DC:50:3B:CF [APP] IP: 192.168.77.100 [APP] GW: 192.168.77.1 [APP] SN: 255.255.255.0 [APP] DNS: 8.8.8.8</pre>						
<					>	-
Line Sender					<b>₽</b> >	¢
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#### Step 4: Set up your WIZ550SR

According to the user environment to change the setting value of the product. In this Step it performs an initial test is based on the factory default settings for the product.

- After changing settings in the Configuration tool, to apply the changed values and click the Setting button and you must enter the **"Setting Password"**.
- The initial value of Setting Password is "WIZnet".
- Once the setup is complete, the message that comes out is a **"Success Set"** and WIZ550SR Reset.

### Step 5: Connect

Connect the PC as the TCP client of the user's serial device for data communication testing. In order to do this, the serial terminal program / TCP client terminal program must be opened on the PC. The serial terminal program and TCP client program must be set as below.

- Serial terminal program
  - Data UART : 115200-8-N-1, Flow control: None
  - Debug UART : 115200-8-N-1, Flow control: None
- TCP client program : 192.168.77.100:5000 (The IP address and port number of WIZ550SR)
  - After a connection to the WIZ550SR within 5 seconds to enter the **"Connection Password"**.
    - The initial value of Connection Password is **"WIZnet"**.
    - $\circ\,$  The connection is stopped within 5 seconds if connection Password did not enter.

#### Step 6: Verify

The basic data communication of the WIZ750SR can be verified as below.

- Serial to Ethernet : data communication verification
  - $\circ\,$  Enter the character string in the serial terminal and check if the identical character string appears on the TCP client terminal.
- Ethernet to Serial : data communication verification
  - Enter the character string in the TCP client terminal and check if the identical character string appears on the serial terminal.

### Step 7: Done

Now you're ready to use the WIZ550SR!

- This document is based on the assumption of the PC as the serial device / remote network device.
- The next step is to connect the WIZ550SR module to the target serial device and check if the device can communicate, control, and monitor via the remote PC or monitoring server.

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