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# Getting Started with WIZ750SR-110

**Supported Languages**

- English (current page)
- Korean

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*** This section was written on the assumption that the use of WIZ750SR-110 Module.**

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## Unpacking the WIZ750SR-110

### What's in the Box?

**Figure: *WIZ750SR-110 Rev. 1.0 Module Package***

The WIZ750SR-110 evaluation board package contains the following parts.

- WIZ750SR-110 RS-232C Module
- Cables (Ethernet / Serial)

The entire list of parts of the board is available at the WIZ750SR-110 Overview: Product Contents page.

### Device Layout

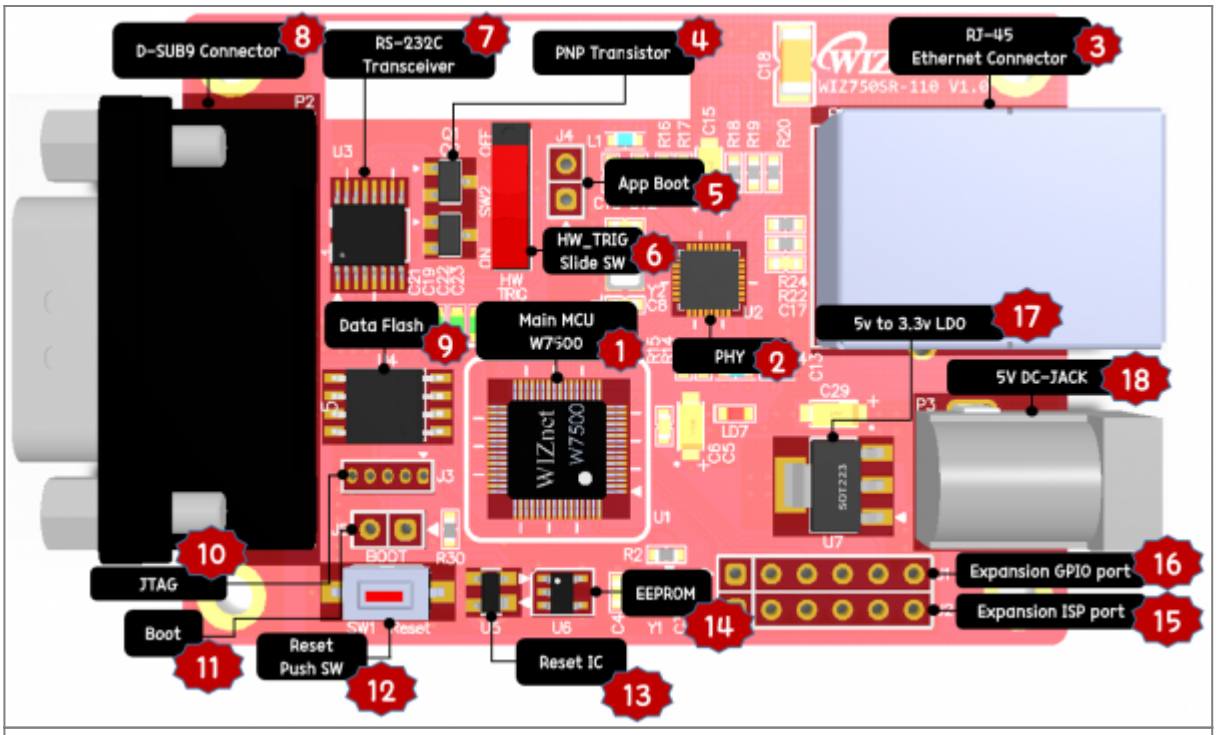


**Figure: *WIZ750SR-110 Revision 1.0 Top***

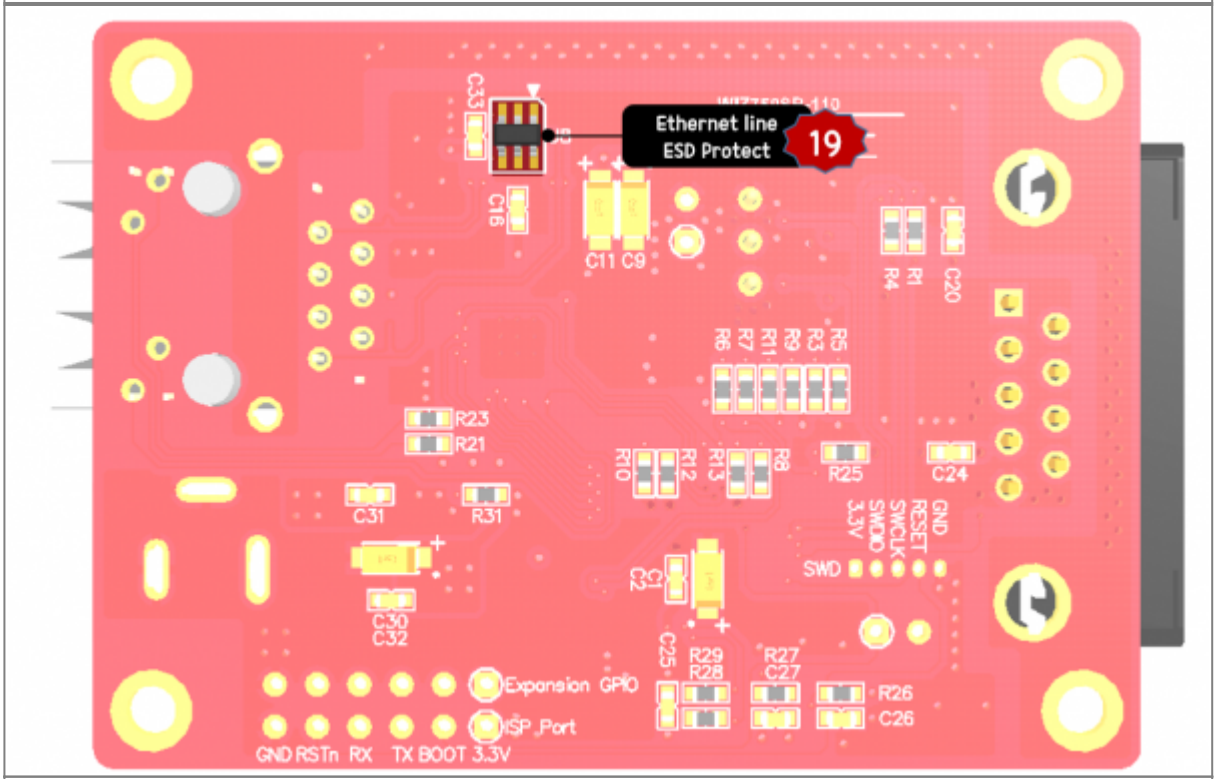


**Figure: *WIZ750SR-110 Revision 1.0 Bottom***

## Parts

- ARM Cortex-M0 based Hardwired TCP/IP core plus PHY Ethernet MCU **W7500** [1)] [1]
- **PHY(Single 10/100M Ethernet Transceiver)** [2]
- **Ethernet Connector** for connecting to LAN Cable [3]
- **PNP Transistor** for UART trans/receive indicate [4]
- **Access to Boot mode Switch** from App mode [5]
- **Access to AT command mode Switch** from App mode [6]
- **Transceiver** for convert TTL to RS-232C [7]
- **RS-232C Connector(D-SUB9 Port)** [8]

- **Data Flash** for saving device data [9]
- **SWD(JTAG) port for use hardware debug port** [10]
- **Access to ISP mode Switch** [11]
- **Reset Button** [12]
- **Reset IC** [13]
- **EEPROM** for saving device setting [14]
- **Expansion ISP Port** for firmware download [15]
- **Expansion GPIO Port** for 4-Pins user I/O [16]
- **LDO** for convert 5V to 3.3V power [17]
- **DC-JACK** for connect 5V 2A adaptor [18]
- **ESD Protect IC** for protecting ethernet signal [19]

### Interfaces and Ports

- **Data Port(RS-232C)**: D-SUB9 Port
- **Network Port**: RJ-45 Ethernet Connector
- **User's Optional Port**: 1×6 2.54mm Pin header 2ea (Debug UART2 pins(ISP) / 4-Pins user I/O)

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## Prerequisites for Setup

### Software

- Configuration tool program (Download page)
- TCP server / TCP client / UDP terminal program
- Serial terminal program

### Hardware

- Your WIZ750SR-110 module
- Ethernet cable
- USB type B cable (for Debug UART)
- DB9 serial RS-232 cable (for Data UART, RS-232/TTL Ver. only)
- Power source for device
    - Such as 5V DC adapter, USB port on your computer, or 3.3V Power source
- **UART2 pin is not mounted. Therefore, users can download ISP by using 'USB to UART module' to J2 connector.**

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## Connect Your WIZ750SR-110

### WIZ750SR-110 Factory Settings

| | | | | |
|---|---|---|---|---|
| **Network Settings** | **Local** | **IP address** | 192.168.11.2 | - |
| | | **Gateway address** | 192.168.11.1 | - |
| | | **Subnet mask** | 255.255.255.0 | - |
| | | **DNS server** | 8.8.8.8 | Google Public DNS |
| | | **Port number** | 5000 | - |
| | **Remote** | **IP address** | 192.168.11.3 | - |
| | | **Port number** | 5000 | - |
| **Serial Port Settings** | **Data UART** | | 115200-8-N-1 / Flow Control: None | - |
| | **Debug UART** | | 115200-8-N-1 / Flow Control: None | Fixed |
| **User's I/O Settings** | **UserIO A** | Analog / Input | Read only | |
| | **UserIO B** | Digital / Input | Read only | |
| | **UserIO C** | Digital / Output | Read / Write | |
| | **UserIO D** | Digital / Output | Read / Write | |

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

- Data packing option - Time: **Disabled**
- Data packing option - Size: **Disabled**
- Data packing option - Char: **Disabled**

- Inactivity Timer: **Disabled**
- Reconnection Timer: **3 second**
- Keep-Alive: **Enabled, 7-sec initial delay, 5-sec send interval**

## PC Settings

> Double check that the WIZ750SR-110 and the PC, or laptop you are using to set up WIZ750SR-110 with are both on the same Ethernet network.

#### Example: PC Network Settings

* When the WIZ750SR-110's settings are factory default,

| | | | | |
|---|---|---|---|---|
| **Network Settings** | **PC or laptop (= Remote)** | **IP address** | 192.168.11.3 | - |
| | | **Gateway address** | 192.168.11.1 | - |
| | | **Subnet mask** | 255.255.255.0 | - |
| | | **Port number** | 5000 | - |

- User should to matching the network settings of 'WIZ750SR-110's remote host' and 'PC (or laptop)' for testing TCP client/mixed mode.
- If the DHCP(automatic IP allocation) is used, both the WIZ750SR-110 and test PC must be set to be assigned the same IP from the same router.

## Connecting Steps

The **WIZ750SR-110-EVB** is designed to use the **DB9 connector** to connect with the user's serial device. Therefore, it is recommended to have all **Ethernet and serial ports connected to the PC** when testing. If the PC does not have a serial port, please purchase a **RS-232 to USB converter** separately.

**Step 1: Plug in**

Connect the WIZ750SR-110 module to evaluation board and also the cable as shown in the picture below.

- Ethernet Cable
  - Used to connect the evaluation board's RJ-45 connector and the PC's Ethernet network interface card (PC's RJ-45 connector)
- Serial Cable
  - Used to connect the evaluation board's DB9 connector and the serial interface card (DB9 connector). If the PC does support serial interface, use the RS-232 to USB converter.
- Optional: USB type B cable (for debug message)
  - Used to connect the evaluation board's USB connector and the PC's USB connector.

**Figure: Combining WIZ750SR-110 module**

**Figure: WIZ750SR-110 side view**

**Step 2: Power on**

Connect the 5V power adaptor or USB cable to the evaluation board and turn on the power switch.

- The power LED will turn red once the evaluation board is on.

**Step 3: Search**

Open the configuration tool and click the search button. If the board is turned on and connected to the same network, the MAC address or settings of the WIZ750SR-110 module can be checked using the configuration tool.

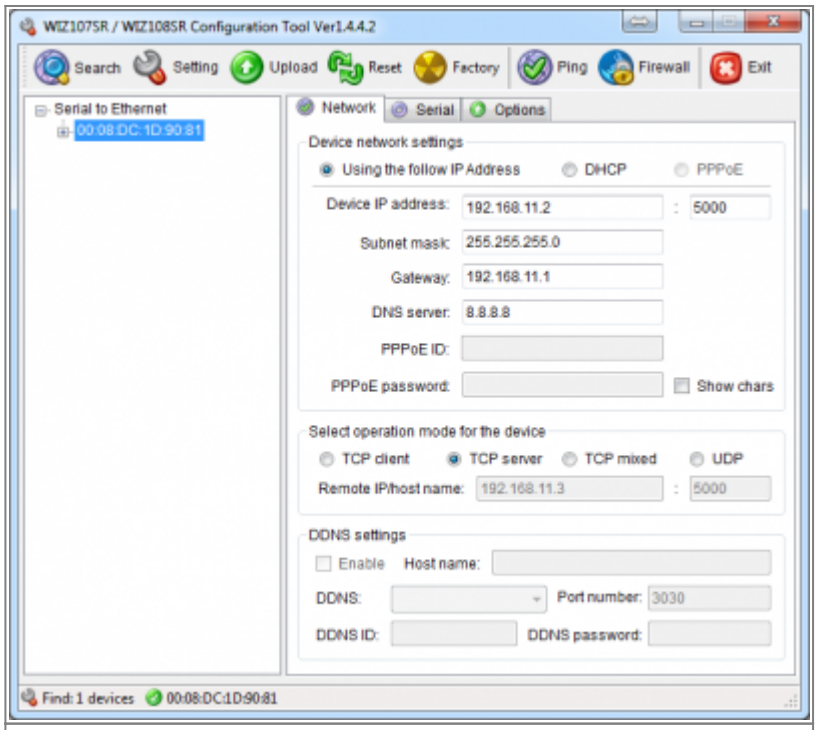


**Figure: WIZnet Configuration Tool**

### Step 4: Set up your WIZ750SR-110

Change the settings accordingly to the customer's environment. The test shown in this document is based on factory setting.

- Click the **setting** button to apply the changes in settings of the configuration tool.

### 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: **115200-8-N-1, Flow control: None**
- TCP client program: **192.168.11.2:5000** (The IP address and port number of WIZ750SR-110)

The COM port for serial terminal program connection can be checked as below.

- Control Panel > System > Device Manager

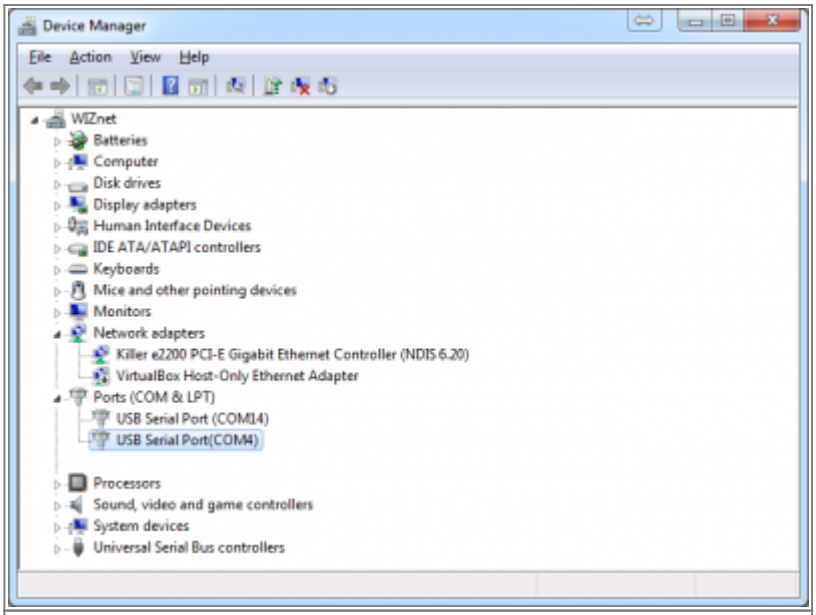


**Figure: Device Manager**

**Step 6: Verify**

The basic data communication of the WIZ750SR-110 can be verified as below.

- **Serial to Ethernet: data communication verification**
  - 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 WIZ750SR-110!

- This document is based on the **assumption of the PC as the serial device / remote network device**.
- The next step is to **connect the WIZ750SR-110 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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**If there is any problem?**
Please refer to our **Troubleshooting Guide**!

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# Navigation

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**WIZ750SR series Common Documents**

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1)
W7500/W7500P are One-chip Ethernet MCU solution based on ARM Cortex-M0 architecture plus WIZnet hardwired TCP/IP core include Ethernet PHY. For more details, please refer to W7500 product page