

Configuring and Installing the NPort 6110

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This Tech Note applies to the following products:

- NPort 6110

What is the NPort 6110?

The NPort 6110 is a kind of Modbus protocol gateway that converts between Modbus/TCP and Modbus Serial (ASCII/RTU).

How do I configure the NPort 6110?

1. Power on the NPort 6110 and then wait until the Ready LED glows green.
2. Connect the host PC and the NPort 6110 to the network.
3. If necessary, update the IP/netmask combination of the host PC and the NPort 6110 so that they are on the same subnet. The NPort's default IP/netmask combination is 192.168.127.254/255.255.255.0. Note that you should be able to ping the NPort 6110 from your host PC.
4. Install the **Modbus gateway configurator** utility from the Document & Software CD that came with the product, or download the latest version of the software from Moxa website:
<http://www.moxa.com/>
5. Start the utility from your PC's desktop:
Start → All Programs → Modbus gateway configurator.
6. Click the **Locate Gateway** button to start the configuration. If your host PC and NPort 6110 are located in the same subnet, select **Broadcast Search**. Otherwise, select **Specify by IP address** to locate the NPort 6110.

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Moxa manufactures one of the world's leading brands of device networking solutions. Products include serial boards, USB-to-serial hubs, media converters, device servers, embedded computers, Ethernet I/O products, terminal servers, Modbus gateways, industrial switches, and Ethernet-to-fiber converters. Our products are key components of many networking applications, including industrial automation, manufacturing, POS, and medical treatment facilities.

How to Contact Moxa

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The Moxa logo consists of the word "MOXA" in a bold, green, sans-serif font, with a registered trademark symbol (®) to the upper right of the letter "A".

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7. Select the NPort 6110 and then click on the **Modify Configuration** selection under the **Configuration** menu
8. Select the **Modbus Settings** tab and then click the **Change Modbus Settings** check box.
9. Select your Modbus serial interface from **Attached Serial Device type**.

Note: Modbus serial protocols include ASCII and RTU modes. The MODBUS protocol is built on a type of master-slave architecture. The master initiates sending a query to slave nodes. The slave nodes will not transfer data until they receive a query from the master, and slave nodes will never communicate with other slave nodes.

10. Select the **Modbus Serial Settings** tab to configure the serial parameters.
11. Click **OK** to save your configuration.

How to test the NPort6110

1. Connect the NPort 6110 to your onboard COM port.
2. Configure the NPort 6110 as a **Modbus RTU Slave**.
3. Run the **ModSim32** modbus simulator.
4. Press Connection → Connect and select your onboard COM port name. Select RTU for Protocol. Make sure your serial parameters are the same as the NPort 6110's and then click OK.
5. Under I/O select Holding Register.
6. Run the **ModScan32** utility.
7. Click **Connection** and then select **Connect**.
8. Select **Remote Modbus TCP Server**. Type the NPort 6110's IP address in the **IP Address** field. Make sure that **Service Port** is set to 502, and then click **OK**.
9. For **MODBUS Point Type** select **03: HOLDING REGISTER** for testing purposes.
10. Double click **+0** in the **ModSim32** utility, change the value from **0** to **1**, and then press **OK**.
11. The test is successful if you can get the same Holding Register's values to change from **0** to **1**.

Note: Make sure that your Holding Register is the same for **Modscan32** and **ModSim32**.

Note: You can download the ModScan32 & ModSim32 shareware utility from the website: <http://www.win-tech.com/>.

Cable Wiring

