MOXA®

NE-4100 Series
Quick Installation Guide

Third Edition, December 2006

1. Overview

The MOXA NE-4100 Series of Network Enablers are serial-to-Ethernet embedded modules that come in 3 types: drop-in type (NE-4100T), RJ45 type (NE-4110S/A), and pin-header type (NE-4120S/A). MOXA provides a Starter Kit for each NE-4100 series module. Each Starter Kit contains an evaluation board that can be used to evaluate the modules and to develop applications. The following table lists the model names of all NE-4100 Series modules, along with the model names of the corresponding Starter Kits.

Starter Kit Model Names	NE-4100 Series Model Names	
	Standard	Programmable
NE-4100-ST	NE-4100T	NE-4100T-P
NE-4110-ST	NE-4110S	NE-4110S-P
	NE-4110A	NE-4110A-P
NE-4120-ST	NE-4120S	NE-4120S-P
	NE-4120A	NE-4120A-P

2. Package Checklist

Each NE-4100 Series Starter Kit package contains the following items:

- 1 NE-4100 Series Evaluation Board
- 1 NE-4100 Series Documentation and Software CD
- 1 Universal Power Adaptor
- 2 Power Cords
- 1 null modem serial cable
- 1 cross-over Ethernet cable
- 1 Product Warranty Booklet
- 1 Quick Installation Guide (this guide)

Notify your sales representative if any of the above items is missing or damaged.

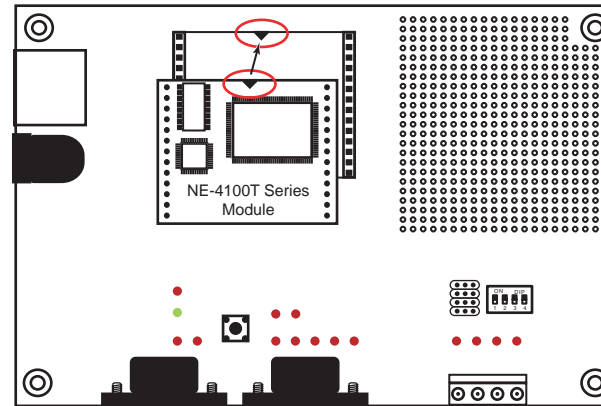## 3. Hardware Installation Procedure

Follow these steps to prepare the module and evaluation board for testing and application development.

STEP 1: Plug the NE-4100 module into the sockets on the top of the evaluation board.

NE-4100-ST:
After attaching the module to the evaluation board, the triangles on the module and evaluation board should line up.
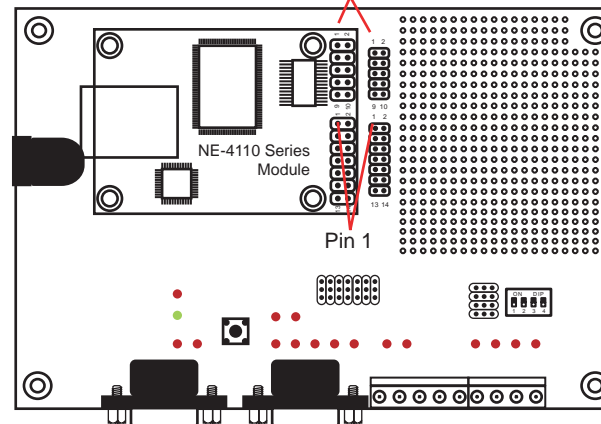
NE-4100-ST Starter Kit

NE-4110-ST:
The module and evaluation board have two jumper arrays, each with a pin labeled 1. Be sure to connect the correct Pin 1 on the module to the correct Pin 1 on the evaluation board.
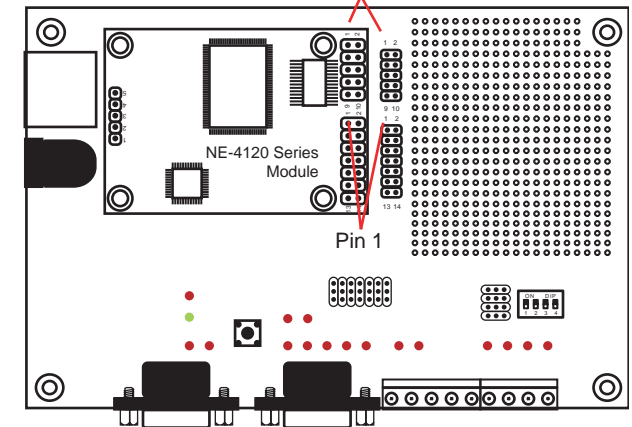
NE-4110-ST Starter Kit

NE-4120-ST:
The module and evaluation board have two jumper arrays, each with a pin labeled 1. Be sure to connect the correct Pin 1 on the module to the correct Pin 1 on the evaluation board.

NE-4120-ST Starter Kit

NOTE:
For detailed information about the pin assignments, wiring, LED indicators, and board layouts, refer to Chapter 2 of the NE-4100 Series User's Manual.

STEP 2: Connect the 12 VDC power line with the evaluation board's power jack.

STEP 3: Use an RJ45 Ethernet cable to connect the NE evaluation board plus module to an Ethernet network. Note that for NE-4100T and NE-4120, the RJ45 Ethernet port is located on the evaluation board. For NE-4110, the RJ45 Ethernet port is located on the module itself.

STEP 4: Use the serial data cable to connect the evaluation board to a serial device.

STEP 5: For NE-4110-ST and NE-4120-ST, use jumper JP2 on the evaluation board to select the proper serial interface. See pages 3-6 and 3-7 of the NE-4100 Series User's Manual for details.

4. Software Utility Installation Procedure

NE-4100 Module

<u>Software Installation</u>

1. Start the "Network Enabler Administrator" setup program to begin the installation. When the **Welcome** window opens, click on **Next**.
2. When the **Select Additional Tasks** window opens, click on **Next**.
3. Click on **Install** to install program files in the default directory.
4. The **Installing** window reports the progress of the installation.
5. Click on **Finish** to complete the installation.

<u>Module Configuration</u>

1. Start the "Network Enabler Administrator" program.
2. Click on **Configuration** from the menu bar, and then select **Broadcast Search** from the drop-down menu.
3. After the search is finished, all NE-4100 modules that were found will be shown in the right panel of the **Configuration** window. If you locate more than one module connected to this network, refer to the MAC address on the module(s) to determine which modules are the ones you wish to configure.
4. Refer to pages 7-6 to 7-19 of the NE-4100 Series User's Manual for additional configuration instructions.

NE-4100 Programmable Module

<u>Software Installation</u>

1. Start the "Network Enabler SDK" setup program to begin the installation. When the **Welcome** window opens, click on **Next**.
2. Select the target directory, and then click on **Next** when the **Select Destination Directory** window opens.
3. Click on **Next** when the **Select Additional Tasks** window opens.
4. Click on **Install**. The **Installing** window will report the progress of the installation.
5. Click on **Finish** to complete the installation.

<u>Module Configuration</u>

1. Start the "NE SDK Manager" program.
2. Click on **Search** from the menu bar, and then select **Broadcast Search** from the drop-down menu.
3. After the search is finished, all NE-4100-P modules that were found will be shown in the NE SDK Manager window. Refer to the "Network Enabler SDK 2 Programmer's Guide" for additional information about setting environment variables and developing applications with NE-4100-P Series products.

5. Reference Material

The following detailed user's guides can be found on the Documentation and Software CD that came with your NE-4100 Series product.

NE-4100 Standard Module

- NE-4100 Series User's Manual

NE-4100-P Series

- Network Enabler SDK 2 Programmer's Guide
- Network Enabler SDK 2 API Reference

6. Certification

This product complies with Chinese RoHS (Restriction of Hazardous Substances) regulations for Electronic Information Products.