

# SDK for MiiNePort E1/E2 Quick Installation Guide

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## Overview

The software development kit (SDK) for the MiiNePort E1 and MiiNePort E2 is a powerful and versatile software suite for the development of proprietary firmware on the MiiNePort E1 and MiiNePort E2. To expedite time to market, the SDK for the MiiNePort E1 and MiiNePort E2 provides comprehensive tools for development, testing, and mass production. The software development kit includes:

- **MiiNePort-IDE:** An integrated platform for the development of serial-to-Ethernet firmware.
- **PComm Lite:** A software application for testing serial and TCP/IP communications or transmissions.
- **Search Utility:** A search-and-update firmware utility for the mass production of modules and serial devices through simultaneous multiple unit configurations.

### Available Starter Kit

- **SDK for MiiNePort E1 and MiiNePort E2:** SDK for the MiiNePort E1 and MiiNePort E2

## Package Checklist

Each SDK package for the MiiNePort E1 and MiiNePort E2 contains the following items:

- 1 module for the MiiNePort E1 or MiiNePort E2.
- 1 evaluation board for the MiiNePort E1 or MiiNePort E2
- 1 universal power adapter
- 2 power cords
- 1 null modem serial cable
- 1 crossover Ethernet cable
- 1 USB cable
- Quick installation guide (print)
- Warranty card

**NOTE** Please notify your sales representative if any of the above items are missing or damaged.

## Hardware Installation Procedure

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



### **ATTENTION**

For detailed information about the pin assignments, wiring, and board layouts, refer to Chapter 1 and 2 of the MiiNePort E-SDK Series User's Manual.

**STEP 1:** Connect the 12 to 48 VDC power line with the evaluation board's power jack.

**STEP 2:** Switch on the power switch.

**STEP 3:** Use an RJ45 Ethernet cable to connect the evaluation board to an Ethernet network.

**STEP 4:** Use the USB cable to connect the evaluation board to the PC.

## Software Utility Installation Procedure

Use the following procedure to install the SDK for the MiiNePort E1 or MiiNePort E2 (MiiNePort-IDE):

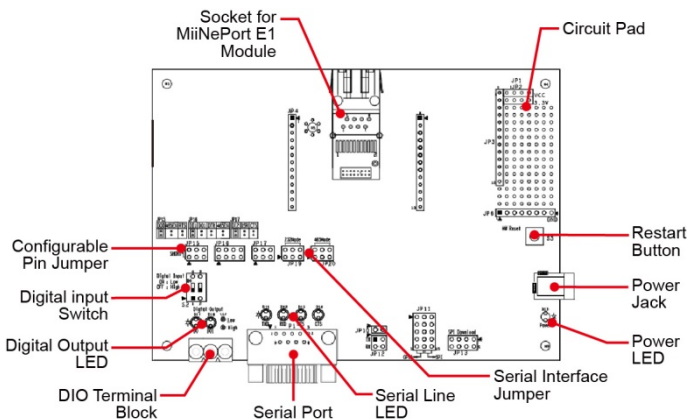
### Software Installation

For software installation, download the relevant utilities from Moxa's website: <https://www.moxa.com/en/support>

1. Start the **MiiNePort-IDE** setup program to begin the installation. When the **Welcome** window opens, click **Next**.
2. Click **Install** to install program files in the default directory.
3. The **Installing** window reports the progress of the installation.
4. Click **Finish** to complete the installation.

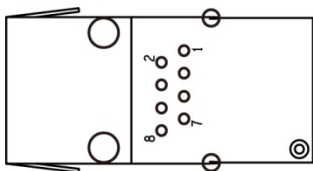
## Evaluation Board Layout

### E1-SDK Version



### Pin Assignment

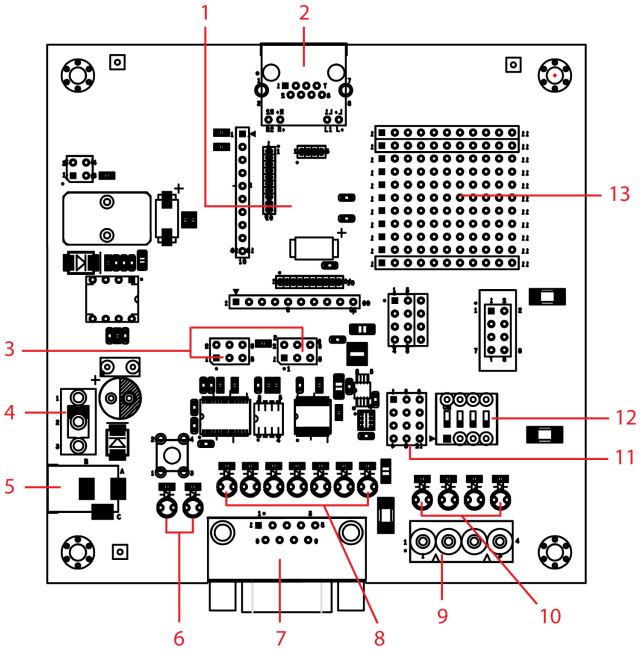
#### Serial Signal Pins



Pin	Function
1	GND
2	VCC
3	Reset
4	Data Out
5	Data In
6	Ready/RTS <sup>a</sup>
7	Reset to Default <sup>b</sup>
8	CTS <sup>c</sup>

- a. Pin 6 can be configured as Ready/RTS (Request to Send), Ready/DO, or RS-485 Tx Enabled (the default is Ready/RTS).
- b. Pin 7 can be configured as Reset to Default, DIO, DTR, or RS-485 Tx Enabled (the default is Reset to Default).
- c. Pin 8 can be configured as CTS (Clear to Send), DI, or DSR (the default is CTS).

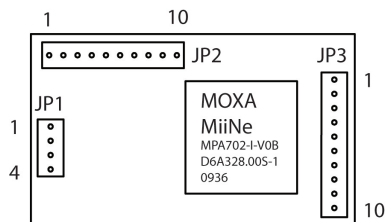
## E2-SDK Version



Number	Description
1	MiiNePort E2 Module Location
2	Ethernet RJ45 Connector
3	Serial Interface Jumper
4	Power Switch
5	Power Jack
6	Power & Ready LED
7	DB9 Male Connector
8	Serial Port Status LED
9	Digital IO Terminal Block
10	Digital Output LED
11	Digital Input/Output Mode
12	Digital Input Switch
13	Circuit Pad
14	USB Type B Connector (Debug)

## Module Pin Assignment

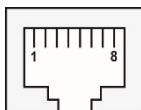
Bottom of the MiiNePort E2 Module



JP1		
Pin	Signal Name	Function
1	Ethernet Tx+	Ethernet Transmit Data+
2	Ethernet Tx-	Ethernet Transmit Data-
3	Ethernet Rx+	Ethernet Receive Data+
4	Ethernet Rx-	Ethernet Receive Data-
JP2		
Pin	Signal Name	Function
1	100M LED	Ethernet 100M LED
2	10M LED	Ethernet 10M LED
3	LRXD	Receive Serial Data
4	LTXD	Transmit Serial Data
5	LDCD	Data Carrier Detect
6	RS485_EN	RS-485 Enable
7	LRTS	Request To Send
8	LDTR	Data Terminal Ready
9	LDSR	Data Set Ready
10	LCTS	Clear To Send
JP3		
Pin	Signal Name	Function
1	DIO0	Programmable Input/Output
2	DIO1	Programmable Input/Output
3	DIO2	Programmable Input/Output
4	DIO3	Programmable Input/Output
5	Reserved	N/A
6	Reserved	N/A
7	SW Reset	Reset To Factory Default
8	GND	Circuit Ground
9	Ready LED	System is Ready
10	VCC	Power Supply

## Evaluation Board Ethernet Port

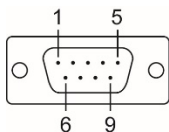
### RJ45



Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

## Evaluation Board Serial Port

### DB9 Male



Pin	RS-232	RS-485-2W
1	DCD	-
2	RxD	-
3	TxD	D+
4	DTR	D-
5	GND	GND
6	DSR	-
7	RTS	-
8	CTS	-
9	-	-

## Reference Material

A detailed user's guides can be downloaded from Moxa's product page under the MiiNePort Series' product page.

## Certification



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