

# MiNePort E Series Quick Installation Guide

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**Version 1.2, January 2021**

**Technical Support Contact Information**  
**[www.moxa.com/support](http://www.moxa.com/support)**

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**P/N: 1802000012014**



## Overview

The Moxa MiiNePort E series of serial-to-Ethernet embedded modules comes with four models: two standard operating temperature models (MiiNePort E, MiiNePort E-H) and two wide operating temperature models (MiiNePort E-T, MiiNePort E-H-T). Moxa provides a starter kit for each MiiNePort E series module; each starter kit contains an evaluation board that can be used to evaluate the modules and to develop your own application. The following table lists the model names of all MiiNePort E series modules, along with the model names of the corresponding starter kits.

### Available Modules

- **MiiNePort E1:** Embedded device server for TTL devices, drop-in module, 10/100M with RJ45 connector, 50 bps to 230.4 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E1-T:** Embedded device server for TTL devices, drop-in module, 10/100M with RJ45 connector, 50 bps to 230.4 Kbps baudrate, -40°C to 85°C operating temperature
- **MiiNePort E1-H:** Embedded device server for TTL devices, drop-in module, 10/100M with RJ45 connector, 50 bps to 921.6 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E1-H-T:** Embedded device server for TTL devices, drop-in module, 10/100M with RJ45 connector, 50 bps to 921.6 Kbps baudrate, -40 to 85°C operating temperature
- **MiiNePort E2:** Embedded device server for TTL devices, drop-in module, 10/100M without RJ45 connector, 50 bps to 230.4 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E2-T:** Embedded device server for TTL devices, drop-in module, 10/100M without RJ45 connector, 50 bps to 230.4 Kbps baudrate, -40 to 85°C operating temperature
- **MiiNePort E2-H:** Embedded device server for TTL devices, drop-in module, 10/100M without RJ45 connector, 50 bps to 921.6 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E2-H-T:** Embedded device server for TTL devices, drop-in module, 10/100M without RJ45 connector, 50 bps to 921.6 Kbps baudrate, -40 to 85°C operating temperature
- **MiiNePort E3:** Embedded device server for TTL devices, pin-header module, 10/100M with RJ45 connector, 50 bps to 230.4 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E3-T:** Embedded device server for TTL devices, pin-header module, 10/100M with RJ45 connector, 50 bps to 230.4 Kbps baudrate, -40 to 85°C operating temperature
- **MiiNePort E3-H:** Embedded device server for TTL devices, pin-header module, 10/100M with RJ45 connector, 50 bps to 921.6 Kbps baudrate, 0 to 55°C operating temperature
- **MiiNePort E3-H-T:** Embedded device server for TTL devices, pin-header module, 10/100M with RJ45 connector, 50 bps to 921.6 Kbps baudrate, -40 to 85°C operating temperature

## **Available Starter Kits**

- **MiiNePort E1-ST:** Starter kit for the MiiNePort E1 Series, module included
- **MiiNePort E1-H-ST:** Starter kit for the MiiNePort E1-H Series, module included
- **MiiNePort E2-ST:** Starter kit for the MiiNePort E2 Series, module included
- **MiiNePort E2-H-ST:** Starter kit for the MiiNePort E2-H Series, module included
- **MiiNePort E3-ST:** Starter kit for the MiiNePort E3 Series, module included
- **MiiNePort E3-H-ST:** Starter kit for the MiiNePort E3-H Series, module included

## **Package Checklist**

Each MiiNePort E Series starter kit package contains the following items:

- 1 MiiNePort E Series module
- 1 MiiNePort E Series evaluation board
- 1 universal power adapter
- 2 power cords
- 1 null modem serial cable
- 1 cross-over Ethernet cable
- 1 product warranty booklet
- 2 flat cables (MiiNePort E3 Series only)
- 1 pack of screw and spacer (MiiNePort E3 Series only)
- 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.

**STEP 1:** Plug the MiiNePort E module into the sockets on the top of the evaluation board.



### **ATTENTION**

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

**STEP 2:** Connect the 12 to 48 VDC power line with the evaluation board's power jack.

**STEP 3:** Switch on the power switch

**STEP 4:** Use an RJ45 Ethernet cable to connect the MiiNePort E module to an Ethernet network.

**STEP 5:** Use the serial data cable to connect the evaluation board to a serial device.

# Software Utility Installation Procedure

Use the following installation procedure for each MiiNePort E model:

## Software Installation

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

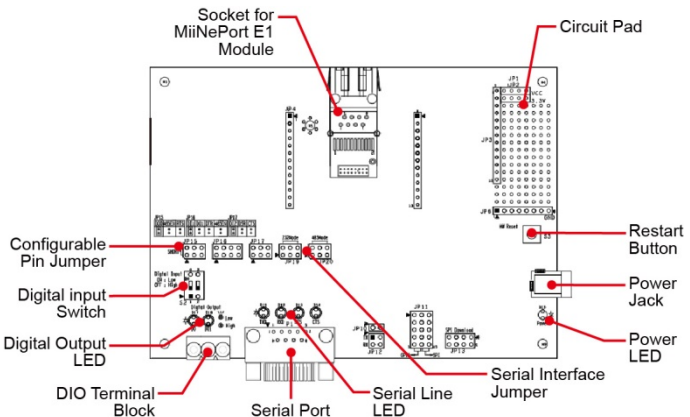
1. Start the **Device Search Utility (DSU)** setup program to begin the installation. When the **Welcome** window opens, click **Next**.
2. Click **Install** to install program files in the default directory.
3. The **Installing** window reports the progress of the installation.
4. Click **Finish** to complete the installation.

## Module Configuration

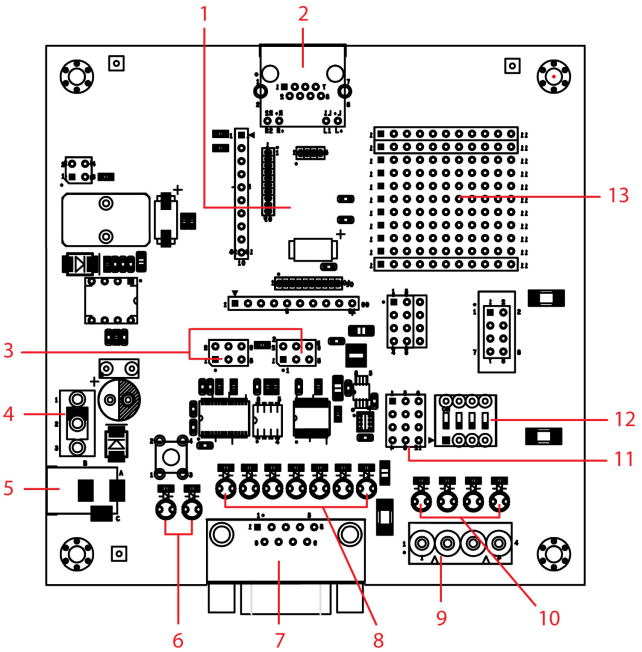
1. Start the **DSU** program.
2. Select the **Search** function from the function icons.
3. After the search is finished, all MiiNePort E modules that were found will be shown in the search window. If you locate more than one module connected to this network, refer to the MAC address on the module(s) to determine the modules you wish to configure.
4. Double-click on the MiiNePort E module you wish to configure; your web browser will be activated with the MiiNePort E's web console.
5. The default IP address of the MiiNePort E is 192.168.127.254, and the default login credentials:  
username: **admin**  
password: **moxa**
6. Refer to Chapter 7 of the MiiNePort E Series User's Manual for additional configuration instructions.

# Evaluation Board Layout

## E1 Series

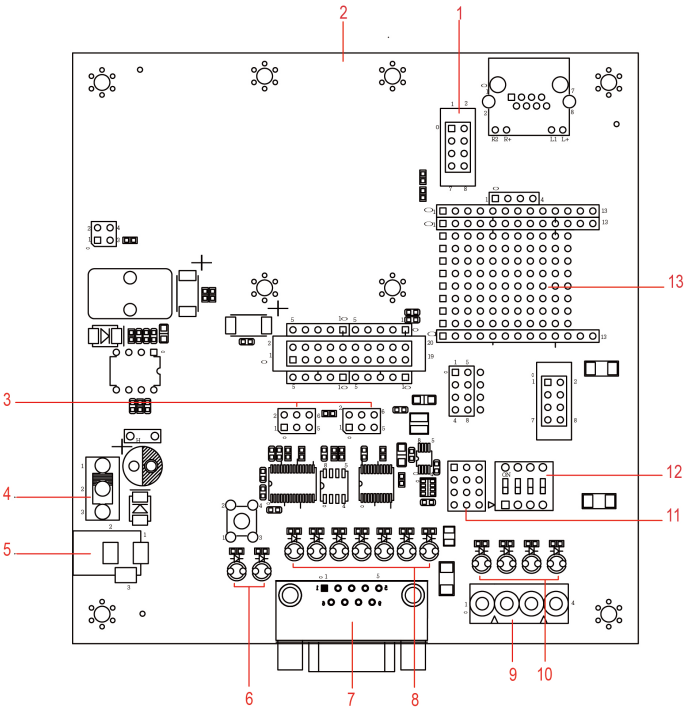


## E2 Series



Number	Description
1	MiiNePort E2 Module Location
2	Ethernet RJ45 Connector
3	Serial Interface Jumper
4	Power Switch
5	Power Jack
6	Power and 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

## E3 Series

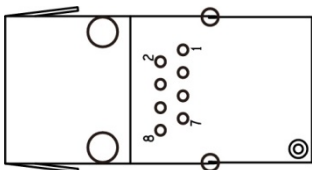


Number	Description
1	PoE Pin
2	MiiNePort E3 Module Location
3	Serial Interface Jumper
4	Power Switch
5	Power Jack
6	Power & Ready LED
7	DB9 Male Connector
8	Serial Port Status LED
9	Digital IO Terminal Block
10	Digital Output LED
11	Digital Input/Output Mode
12	Digital Input Switch
13	Circuit Pad

## Pin Assignment

### E1 Series

Serial Signal Pins (MiiNePort E1 Series Modules)

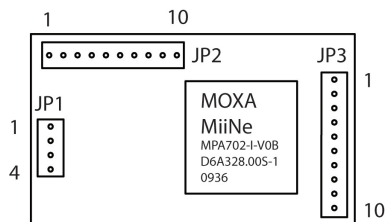


Pin	Function
1	GND
2	VCC
3	Reset
4	Data Out
5	Data In
6	Ready/RTS <sup>a</sup>
7	Reset to Default <sup>b</sup>
8	CTS <sup>c</sup>

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

### E2 Series

The bottom view of the MiiNePort E2 Series Module

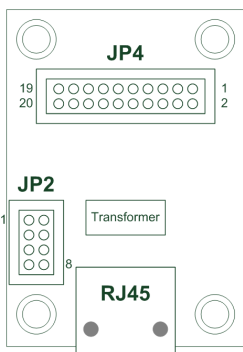


JP1		
Pin	Signal Name	Function
1	Ethernet Tx+	Ethernet Transmit Data+
2	Ethernet Tx-	Ethernet Transmit Data-
3	Ethernet Rx+	Ethernet Receive Data+
4	Ethernet Rx-	Ethernet Receive Data-
JP2		
Pin	Signal Name	Function
1	100M LED	Ethernet 100M LED
2	10M LED	Ethernet 10M LED
3	LRXD	Receive Serial Data
4	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

### **E3 Series**

The bottom view of the MiiNePort E3 Series Module



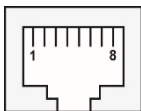
Ethernet Pins (JP2)		
Pin	Signal Name	Function
1	Reserve	N/A
2	Reserve	N/A
3	Reserve	N/A
4	Reserve	N/A
5	PoE signal pair 1	PoE power from Tx signal
6	PoE spare pair 1	PoE power from RJ45 4, 5 pin
7	PoE signal pair 2	PoE power from Rx signal
8	PoE spare pair 2	PoE power from RJ45 7, 7 pin
Serial Pins and Power Pins (JP4)		
Pin	Signal Name	Function
1	Serial Rx	Receive Serial Data
2	Ready LED	System is Ready
3	Serial Tx	Transmit Serial Data
4	GPIO	Programmable I/O, DIO0
5	DCD	Receive Line Signal Detector
6	GPIO	Programmable I/O, DIO2
7	RS485_EN0	RS-485 Enabled
8	GPIO	Programmable I/O, DIO3
9	RTS	Request to Send
10	GPIO	Programmable I/O, DIO1
11	DTR	Data Terminal Ready
12	Reserve	N/A



Pin	Signal Name	Function
13	DSR	Data Set Ready
14	Reserve	N/A
15	CTS	Clear to Send
16	SW_Reset	Reset to Factory Default
17	Reserve	N/A
18	Reserve	N/A
19	GND	Circuit Ground
20	VCC	Power Supply

### **Ethernet Port Pins**

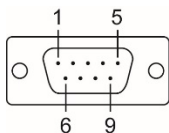
#### **RJ45**



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	-	-

### **Certification**



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