# NPort 5600 Series Quick Installation Guide

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## **Overview**

Welcome to the Moxa NPort 5600 Series. The NPort 5610-8/16 has 8 or 16 RS-232 ports, the NPort 5630-8/16 has 8 or 16 RS-422/485 ports, and the NPort 5650-8/16 has 8 or 16 RS-232/422/485 ports.

#### **NPort 5600 Series Models**

The NPort 5600 Series includes the following models: NPort 5610-8, NPort 5610-16, NPort 5610-8-48V, NPort 5610-16-48V, NPort 5630-8, NPort 5630-16, NPort 5650-8, NPort 5650-8-T, NPort 5650-8-HV-T, NPort 5650-16-HV-T, NPort 5650-16, NPort 5650-16-T, NPort 5650-8-M-SC, NPort 5650-16-M-SC, NPort 5650-8-S-SC, and NPort 5650-16-S-SC.

# Package Checklist

The NPort 5600 package should contain the following items:

- 1 NPort 5600 Series serial device server
- Power cord (AC models only)
- NPort Documentation & Software CD
- NPort 5600 Quick Installation Guide

#### Optional Accessories:

- CBL-RJ45M9-150: 8-pin RJ45 to DB9 male cable, 150 cm
- CBL-RJ45F9-150: 8-pin RJ45 to DB9 female cable, 150 cm
- CBL-RJ45M25-150: 8-pin RJ45 to DB25 male cable, 150 cm
- CBL-RJ45F25-150: 8-pin RJ45 to DB25 female cable, 150 cm

Note: Please notify your sales representative if any of the above items is missing or damaged.

## **Hardware Introduction**

**NOTE** The wide temperature model does not come with LCM display panels or push buttons. All of the LCM descriptions below apply only to standard temperature models.

The front and rear panels are shown below:

#### Front panel of the NPort 5600 Series



#### Rear panel of the NPort 5610/5630/5650 (AC Power)



#### Rear panel of the NPort 5650 (Fiber Model)



## Rear panel of the NPort 5610 (DC Power)



#### Front panel of the NPort 5650-T Series



**Reset Button**—press the Reset button continuously for 5 seconds to load factory defaults: Use a pointed object to press the reset button. Release the button after the Ready LED stops blinking.

**LED Indicators on the Front Panel**—the front panels of the NPort 5600 have several LED indicators, as described in the following table.

Name	Color	Function
	Off	Power is off, or power error condition exists.
		Steady on: Power is on and the NPort is booting up.
	Red	Blinking: Indicates an IP conflict, or DHCP or
Dondy		BOOTP server did not respond properly.
Ready	Green	Steady on: Power is on and the NPort is functioning
		normally.
		Blinking: The NPort has been located by NPort
		Administrator's Location function.
	Orange	Serial port is receiving data.
1 1 1 1 1 1	Green	Serial port is transmitting data.
1 to 16	Off	No data is being transmitted or received through
1	Oπ	the serial port.

**LCM Display Panel**—If the NPort is working properly, the LCM panel will display a green color. The red Ready LED will also light up, indicating that the NPort is receiving power. After the red Ready LED turns green, you will see a display similar to:

N	P	5	6	1	0	ı	1	6		3	8				
1	9	2	•	1	6	8	•	1	2	7		2	5	4	

This is where:

- NP5610-16 is the NPort's name
- 38 is the NPort's local sequence number
- 192.168.127.254 is the NPort's IP address

**LCM Panel Operation**—There are four buttons on the NPort 5600's front panel. These buttons are used to operate the server's LCM panel. Going from left to right, the buttons are:

Button	Action
MENU	Activates the main menu, or returns to a lower level.
	Scrolls up through a list of items shown on the LCM panel's
^	second line.
~	Scrolls down through a list of items shown on the LCM
	panel's second line.
SEL	Selects the option listed on the LCM panel's second line.

Detailed LCM Panel Operating instructions can be found in the *NPort 5600 Series User's Manual* on the CD-ROM.

Link Indicator on the rear panel of the NPort 5650 fiber model—the rear panels of the NPort 5650 have a link indicator, as described in the following table.

<b>LED Name</b>	LED Color	LED Function
	Off	Fiber disconnected.
Link	Green	Fiber connected, data not transmitting.
	Blinking	Fiber connected, data is transmitting.

#### **Hardware Installation**

**STEP 1:** After removing the NPort 5600 from the box, the first thing you should do is attach the power adapter.

**STEP 2:** Connecting the Power.

**AC:** Connect the NPort 5600's 100-240 VAC power cord to the AC connector. The "Ready" LED will show a solid red color until the system is ready, at which time it will change to a green color.

**DC:** Connect the NPort 5600 VDC's power cord to the DC connector, and then follow the steps given below:

Take NPort 5610-8-48V as an example. Loosen the screws on the V+ and V- terminals of the NPort 5610-8-48V's terminal block. Connect the power cord's 48 VDC or -48 VDC wire to the terminal block's



V+ terminal, and the power cord's DC Power Ground wire to the terminal block's V- terminal, and then tighten the terminal block screws. (Note: The NPort 5610-8-48V can still operate even if the 48V/-48V and DC Power Ground are reversed.)

The "Ready" LED will show a solid red color until the system is ready, at which time it will change to a green color.

# Grounding the NPort 5600 VDC:

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices. The Shielded Ground (sometimes called Protected Ground) contact is the second contact from the right of the



5-pin power terminal block connector located on the rear panel of the NPort 5610-8-48V. Connect the SG wire to the Earth ground.

**STEP 3:** Connect the NPort 5600 to a network. Use a standard straight-through Ethernet cable to connect to a hub or switch. When setting up or testing the NPort 5600, you might find it convenient to connect directly to your computer's Ethernet port. In this case, use a cross-over Ethernet cable.

STEP 4: Connect the NPort 5600's serial port to a serial device.

**Placement Options:** You can place the NPort 5600 on a desktop or other horizontal surface.

#### **Software Installation Information**

To install NPort Administration Suite, insert the NPort Document & Software CD into your computer's CD-ROM drive. Once the NPort Installation CD window opens, click on the INSTALL UTILITY button, and then follow the instructions on the screen.

To view detailed information about **NPort Administration Suite**, click on the **DOCUMENTS** button, and then select "NPort 5600 Series User's Manual" to open the PDF version of this user's guide.

# **Pin Assignments and Cable Wiring**

# Serial Port Pinouts for the NPort 5610



Pin	RS-232
1	DSR (in)
2	RTS(out)
3	GND
4	TxD(out)
5	RxD(in)
6	DCD(in)
7	CTS(in)
8	DTR(out)

# Serial Port Pinouts for theNPort 5630



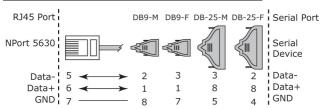
Pin	RS-422/ RS-485-4W	RS-485-2W
1	ı	Ī
2	ı	Ī
3	TxD+	Ī
4	TxD-	Ī
5	RxD-	Data-
6	RxD+	Data+
7	GND	GND
8	-	_

#### **Serial Port Pinouts for the NPort 5650**

Pin	RS-232	RS-422/RS-485-4W	RS-485-2W
1	DSR	ı	_
2	RTS	TxD+	-
3	GND	GND	GND
4	TxD	TxD-	-
5	RxD	RxD+	Data+
6	DCD	RxD-	Data-
7	CTS	-	_
8	DTR	ı	-



#### Serial Cables for the NPort 5630 (2-wire RS-485)



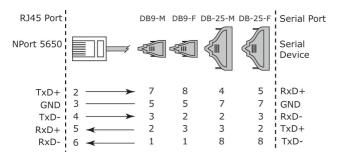
#### Serial Cables for the NPort 5630 (RS-422/4-wire RS-485)

RJ45 Port		DB9-M	DB9-F	DB-25-M	DB-25-F	Serial Port
NPort 5630						Serial Device
TxD+	3 →	5	5	7	7	RxD+
TxD-	4 ───	3	2	2	3	RxD-
RxD-	5 ←	2	3	3	2	TxD-
RxD+	6 ←	1	1	8	8	TxD+
GND	7 ———	8	7	5	4	GND

#### Serial Cables for the NPort 5610/5650 (RS-232)

RJ45 Port		DB9-M	DB9-F	DB-25-M	DB-25-F	Serial Port
NPort 5610 NPort 5650						Serial Device
DSR	1 ←	6	4	6	20	DTR
RTS	2 →	7	8	4	5	CTS
GND	3 ———	5	5	7	7	GND
TxD	4 ──➤	3	2	2	3	RxD
RxD	5  ←	2	3	3	2	TxD
DCD	6 ←	1	1	8	8	DCD
CTS	7	8	7	5	4	RTS
DTR	8	4	6	20	6	DSR

#### Serial Cables for the NPort 5650 (RS-422/4-wire RS-485)



#### Serial Cables for the NPort 5650(2-wire RS-485)

