NPort 5600 Series
Quick Installation Guide

Fourth Edition, August 2004

1. Overview

Welcome to the MOXA NPort 5600 Series of advanced serial device servers, which make it easy for you to network-enable your serial devices. NPort 5610-16/8 comes with 16/8 RS-232 ports, and NPort 5630-16/8 comes with 16/8 RS-422/485 ports.

2. Package Checklist

Before installing NPort 5600, verify that the package contains the following items:

- 1 16-port or 8-port serial device server
- NPort Documentation & Software CD
- NPort 5600 Quick Installation Guide
- Power cord (included with AC version of the product)

Optional Accessories

- CBL-RJ45M9-150 8-pin RJ45 to Male DB9 cable, 150 cm
- CBL-RJ45F9-150 8-pin RJ45 to Female DB9 cable, 150 cm
- CBL-RJ45M25-150 8-pin RJ45 to Male DB25 cable, 150 cm
- CBL-RJ45F25-150 8-pin RJ45 to Female DB25 cable, 150 cm

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

3. Hardware Introduction

The NPort 5600 Series has 6 models: NPort 5610-16, NPort 5610-8, NPort 5610-16-48V, NPort 5610-8-48V, NPort 5630-16, and NPort 5630-8. The following figures show the front and rear panel of NPort 5600.

Front panel of NPort 5600 Series

Rear panel of NPort 5610-16 (AC Power)

Rear panel of NPort 5610-16-48V (DC Power)

P/N: 18020561002

Reset Button—Press the *Reset button* continuously for *5 sec to load factory defaults*: Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.

LED Indicators

The front panels of NPort 5600 have several LED indicators, as described in the following table.

LED Name	LED Color	LED Function
Ready	off	Power is off, or power error condition exists.
	red	Steady on: Power is on and NPort is booting up.
		Blinking: Indicates an IP conflict, or DHCP or BOOTP server did not respond properly.
	green	Steady on: Power is on and NPort is functioning normally.
		Blinking: The NPort has been located by NPort Administrator's Location function.
1-16	orange	Serial port is receiving data.
	green	Serial port is transmitting data.
	off	No data is being transmitted or received through 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	-	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 serial number
- 192.168.127.254 is the NPort's IP address

LCM Panel Operation—There are four buttons on 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 an upper level.
^	Scrolls up through a list of items shown on the LCM panel's second line.
v	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 on the CD-ROM in the "NPort 5600 Series User's Manual."

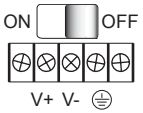
4. Hardware Installation Procedure

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

STEP 2: Connecting the Power

AC: Connect the NPort 5610/5630 100-240 VAC power cord to the AC connector. If the power connection is correct, the "Ready" LED will show a solid red color until the system is ready, at which time the "Ready" LED will change to a green color.

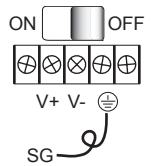
DC: Connect NPort 5610-16/8-48V's power cord to the DC connector, and then follow the steps given below:



1. Loosen the screws on the V_+ and V_- terminals of NPort 5610-8/16-48V's terminal block.
2. 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: NPort 5610-8/16-48V can still operate even if the 48V/-48V and DC Power Ground are reversed.)

If the power is connected properly, the "Ready" LED will show a solid red color until the system is ready, at which time the "Ready" LED will change to a green color.

Grounding NPort 5610-16/8-48V:



Grounding and wire routing helps 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 NPort 5610-8/16-48V. Connect the SG wire to the Earth ground.

STEP 3: Connect NPort 5600 to a network. Use a standard straight-through Ethernet cable to connect to a Hub or Switch. When setting up or testing 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 NPort 5600's serial port to a serial device.

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

5. Software Installation Information

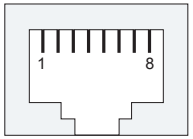
To install **NPort Administration Suite**, insert the **NPort Document & Software CD** into your computer's CD-ROM drive. Once the **NPort Installation CD** window opens, click on the **INSTALL UTILITY** button, and then follow the instructions on the screen.

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.

6. Pin Assignments and Cable Wiring

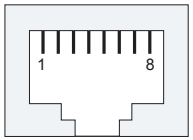
Serial Port RS-232 Pinouts (RJ45)

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



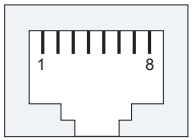
Serial Port RS-422/4-wire RS-485 Pinouts (RJ45)

Pin	Signal
1	---
2	---
3	TxD+
4	TxD-
5	RxD-
6	RxD+
7	GND
8	---



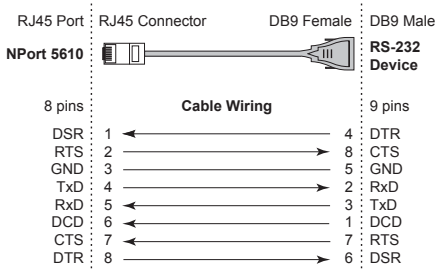
Serial Port 2-wire RS-485 Pinouts (RJ45)

Pin	Signal
1	---
2	---
3	---
4	---
5	Data-
6	Data+
7	GND
8	---

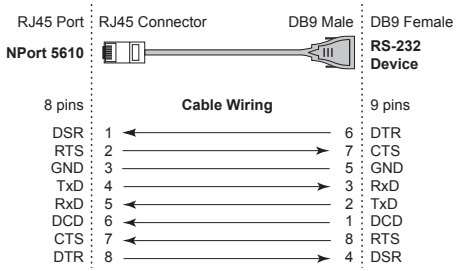


Serial Cables

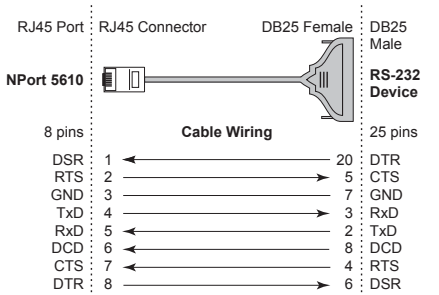
RJ45 (8-pin) to Female DB9, for NPort 5610



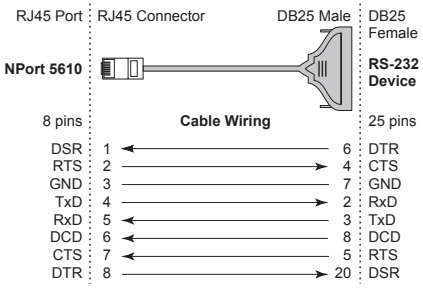
RJ45 (8-pin) to Male DB9, for NPort 5610



RJ45 (8-pin) to Female DB25, for NPort 5610



RJ45 (8-pin) to Male DB25, for NPort 5610



7. Environmental Specifications

Power requirements	
Power Input	100 to 240 VAC, 47 to 63 Hz,
	±48 VDC (38 to 72 VDC, -38 to -72 VDC)
Power Consumption	
NPort 5610-8/16	200 mA for 100V, 145 mA for 240V
NPort 5610-8/16-48V	250 mA (at 48V max.)
NPort 5630-8/16	212 mA for 100V, 130 mA for 240V
Operating temp.	0 to 55°C (32 to 131°F)
Operating humidity	5 to 95% RH
Dimensions (W×D×H)	198 × 45 × 480 mm (including ears)
	198 × 45 × 440 mm (without ears)
Serial line protection	15 KV ESD for all signals
Magnetic isolation	1.5 KV for Ethernet
Power line protection	4 KV Burst (EFT), EN61000-4-4
	2 KV Surge, EN61000-4-5
Regulatory approvals	FCC Class A, CE Class A, UL, CUL, TÜV

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