NPort 5200A Series
Quick Installation Guide

Version 2.3, January 2021

MOXA®

Overview

NPort 5200A series of device servers are compact, palm-sized data communication devices that allow you to control RS-232 (NPort 5210A), RS-422/485 (NPort 5230A), and RS-232/422/485 (NPort 5250A) serial devices over a TCP/IP-based Ethernet.

NOTE "-T" indicates an extended temperature model.

Package Checklist

Before installing the NPort 5200A device server, verify that the package contains the following items:

- 1 NPort 5200A serial device server
- 4 stick-on pads
- Quick Installation Guide
- Product Warranty Statement

Optional Accessory

- DK-35A: DIN-Rail Mounting Kit (35 mm)

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

Hardware Introduction

As shown in the following figures, the NPort 5200A series device servers have two male DB9 ports for transmitting RS-232 (NPort 5210A), or RS-232/422/485 (NPort 5250A) serial data and have two 5-pin terminal block ports for transmitting RS-422/485 (NPort 5230A).
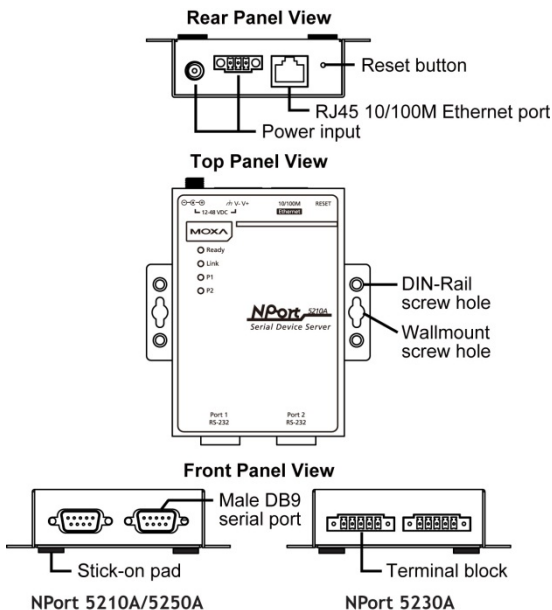

Reset Button—*Press and hold the Reset button for 5 seconds to load factory defaults:* Use a pointed object, such as a straightened paper clip

or toothpick, to depress 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, release the reset button.

LED Indicators—NPort 5200A's top panel has four LED indicators, which are described in the following table.

LED Name	LED Color	LED Function	
Ready	Red	Steady on:	Power is on and the NPort is booting up.
		Blinking:	Indicates an IP conflict, or DHCP or BOOTP server is not responding properly.
	Green	Steady on:	Power is on and the NPort is functioning normally.
		Blinking:	The NPort has been located by the NPort Administrator's Location function.
	Off	Power is off, or a power error..	
Link	Orange	10 Mbps Ethernet connection.	
	Green	100 Mbps Ethernet connection.	
	Off	Ethernet cable is disconnected.	
P1, P2	Orange	Serial port is receiving data.	
	Green	Serial port is transmitting data.	
	Off	No data is being transmitted or received through the serial port.	

Adjustable pull high/low resistor and terminator for RS-422/485
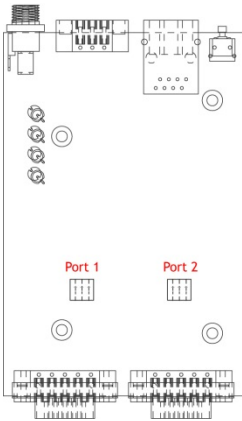
Remove the NPort 5230A/5250A's top cover and you will find DIP switches to adjust each serial port's pull-high, pull-low, and terminator. Do not use the 1 KΩ setting with RS-232 mode, as doing so will degrade the RS-232 signals and shorten the communications range.
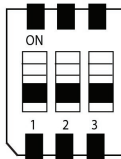
SW	1	2	3
	Pull-high resistor	Pull-high resistor	Terminator
ON	1 KΩ	1 KΩ	120 Ω
OFF	*150 KΩ	*150 KΩ	*–

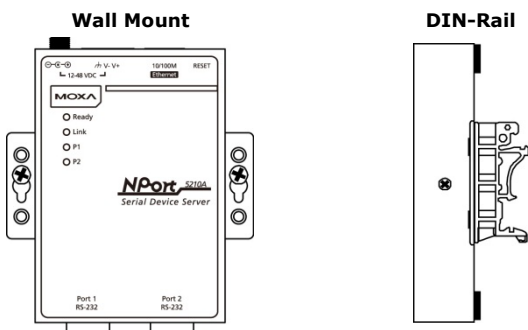*Default

Hardware Installation Information

STEP 1: After removing the NPort 5200A series device server from the box, connect the NPort 5200A series device server to a network. Use a standard straight-through Ethernet cable to connect to a hub or switch. When setting up or testing the NPort 5200A series device server, you might find it convenient to connect directly to your computer's Ethernet port. In this case, use a cross-over Ethernet cable.

STEP 2: Connect the NPort 5200A series device server's serial port to a serial device.

STEP 3: Connect the power adaptor.

STEP 4: Placement options.

In addition to placing the NPort 5200A on a desktop or other horizontal surface, you may also make use of the DIN-Rail or Wall Mount options, as illustrated below.

Wall Mount   **DIN-Rail**


Software Installation Information

For the NPort's configuration, the default IP address of the NPort is:
LAN: Static IP = 192.168.127.254; netmask = 255.255.255.0
You may log in with the password **moxa** to change any setting to meet your network topology (e.g., IP address) or serial device (e.g., serial parameters). If you would like to apply the Real COM mode to your application, you will need to install the NPort's driver on your desktop. You may also refer to Moxa's support website
https://www.moxa.com/support/ for the user's manual, driver, NPort Search Utility, and more.

NOTE   For the NPort with DB Male serial ports, you may refer to the DB9 Male Ports pin assignment section to loop back pin 2 and pin 3 for the RS-232 interface to carry out a self test on the device.
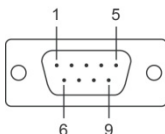

Pin Assignments
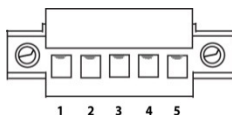
Ethernet Port Pinouts

Pin No.	Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-
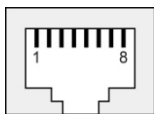
NPort 5210A—DB9 male (RS-232) port pinouts

Pin No.	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	–

NPort 5230A—Terminal Block (RS-422/485) port pinouts

Pin No.	RS-422/485-4W	RS-485-2W
1	TxD+(B)	–
2	TxD-(A)	–
3	RxD+(B)	Data+(B)
4	RxD-(A)	Data-(A)
5	GND	GND

NPort 5250A—DB9 male (RS-232/422/485) port pinouts

Pin No.	RS-232	RS-422/485-4W	RS-485-2W
1	DCD	TxD-(A)	–
2	RxD	TxD+(B)	–
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	–	–
7	RTS	–	–
8	CTS	–	–
9	–	–	–
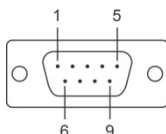
Specifications

Power Requirements	
Power Input	12 to 48 VDC
Power Consumption	119 mA @ 12V, 65 mA @ 24V
Environmental Limits	
Operating Temperature	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Ambient Humidity	5 to 95% RH
Dimensions	
With ears	100 x 111 x 26 mm (3.94 x 4.37 x 1.02 in)
Without ears	77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in)
Protection	
Serial Line Protection	Level 1 Surge, EN61000-4-5
Magnetic Isolation	1.5 KV for Ethernet
Power Line Protection	Level 2 Burst (EFT), EN61000-4-4 Level 3 Surge, EN61000-4-5
Regulatory Approvals	
FCC Class A, CE Class A, UL, LVD	