NPort P5150A Series
Quick Installation Guide

Version 2.3, January 2021

Technical Support Contact Information
www.moxa.com/support

© 2021 Moxa Inc. All rights reserved.

P/N: 1802051501013

Overview

NPort P5150A series of device servers are compact, palm-sized data communication devices that allow you to control RS-232/422/485 serial devices over a TCP/IP-based Ethernet.

NOTE "-T" indicates an extended temperature model.

Package Checklist

Before installing the NPort P5150A series of device server, verify that the package contains the following items:

- 1 NPort P5150A serial device server
- 4 stick-on pads
- Quick Installation Guide
- Product Warranty Statement

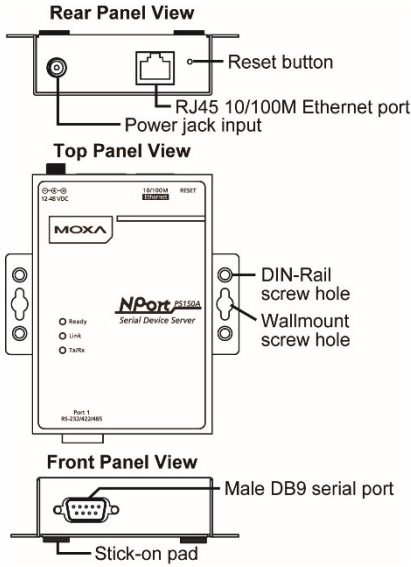
Optional Accessory

- 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, NPort P5150A series of device servers have one male DB9 port for transmitting RS-232/422/485 serial data.



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. Once the Ready LED stops blinking (after about 5 seconds), release the reset button and the device server will start to load the factory defaults.

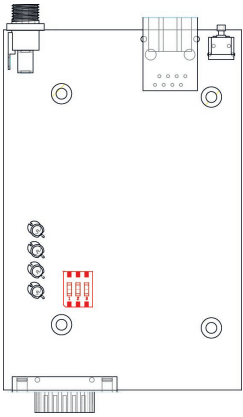
WARNING

1. The equipment is designed for in-building installation only and is not intended to be connected to exposed (outside plant) networks.
2. This equipment is intended to be used in a Restricted Access Location.
3. This product is intended to be supplied by an UL60950-1 and IEC60950-1 certified Power Unit marked "LPS" and rated output rating: 12 to 48 VDC, 0.18 A minimum, 75°C.

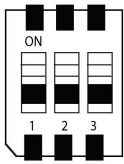
LED Indicators—NPort P5150A's top panel has three LED indicators, which are described in the following table.

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.	
Tx/Rx	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-485



Remove the NPort P5150A'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-low resistor	Terminator
ON	1 KΩ	1 KΩ	120 Ω
OFF	*150 KΩ	*150 KΩ	*–

*Default

Hardware Installation Information

STEP 1: After removing the NPort P5150A device server from the box, if you are not using a PoE switch, the first thing you should do is connect the power adaptor.

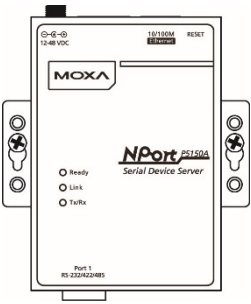
STEP 2: Connect the NPort P5150A device server to a network. Use a standard straight-through Ethernet cable to connect to a PoE switch.

STEP 3: Connect the NPort P5150A device server's serial port to a serial device.

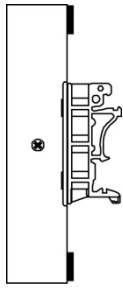
STEP 4: Placement options.

In addition to placing the NPort P5150A 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

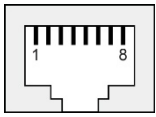
For the NPort's configuration, the default IP address of the NPort is: LAN: Static IP = 192.168.127.254; netmask = 255.255.255.0

You may log in with the password **moxa** to change any settings 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 support website https://www.moxa.com/support/ for the user's manual, driver, NPort Search Utility, and more.

Pin Assignments

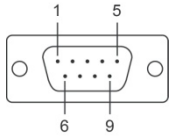
Ethernet Port Pinouts

Pin No.	Ethernet
1	Tx+
2	Tx-
3	Rx+
6	Rx-



NPort P5150A—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 (Supplied by power adapter) or 48 VDC (Supplied by PoE.)
Power Consumption	125 mA @ 12V, 40 mA @ 48 VDC (Supplied by power adapter) 180 mA @ 48V (Supplied by PoE.)
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)
Operating 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 2 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 60950-1, EN 60950-1	