

NPort 6150/6250 Series Quick Installation Guide

Version 11.0, March 2020

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Overview

The NPort 6150/6250 Series secure serial device servers provide reliable serial-to-Ethernet connectivity for a wide range of serial devices. The NPort 6150/6250 support TCP Server, TCP Client, UDP, and Pair-Connection operation modes to ensure the compatibility of network software. In addition, the NPort 6150/6250 also support Secure TCP Server, Secure TCP Client, Secure Pair-Connection, and Secure Real COM modes for security critical applications such as banking, telecom, access control, and remote site management.

Package Checklist

Before installing an NPort 6150/6250 secure device server, verify that the package contains the following items:

- NPort 6150 or NPort 6250
- Power adapter (does not apply to -T models)
- 2 wall-mount ears
- Documentation
- Quick installation guide (this guide)
- Warranty card

Optional Accessories

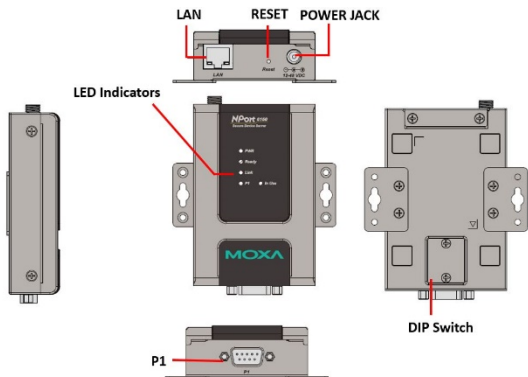
- DK-35A: DIN-rail mounting kit (35 mm)
- CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable
- CBL-RJ45M25-150: 8-pin RJ45 to male DB25 cable

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

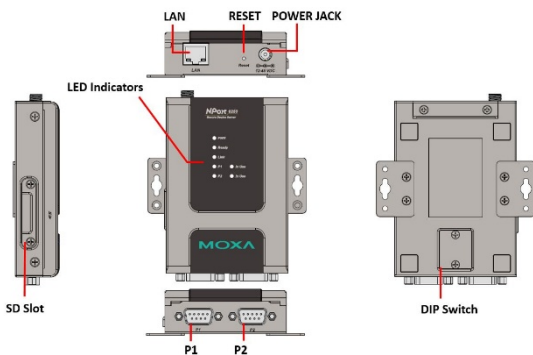
NOTE The operating temperature of the power adapter in the box is from 0 to 40°C. If your application is out of this range, please use a power adapter supplied by UL Listed External Power Supply (The power output meets SELV and LPS and rated 12 to 48 VDC; the minimum current is 0.43 A).

Hardware Introduction

NPort 6150



NPort 6250



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

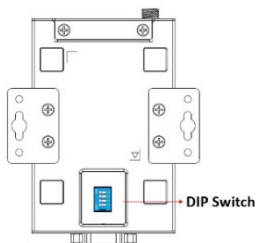
LED Name	LED Color	LED Function	
PWR	Red	Power is being supplied to the power input.	
Ready	Red	Steady on	Power is on and the NPort is booting up.
		Blinking	Indicates an IP conflict, or, the DHCP or BOOTP server did not respond properly or a relay output occurred. Check the relay output first. If after resolving the relay output the RDY LED is still blinking, then there is an IP conflict, or the DHCP or BOOTP server did not respond properly.
	Green	Steady on	Power is on and the NPort is functioning normally.
		Blinking	The device server has been located by the Administrator's Location function.
	Off	Power is off, or power error condition exists.	

LED Name	LED Color	LED Function
Link	Orange	10 Mbps Ethernet connection
	Green	100 Mbps Ethernet connection
	Off	Ethernet cable is disconnected, or has a short.
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.

P1, P2 in-use LED	Green	Serial port was opened by server side software.
	Off	Serial port has not been opened by server side software.

Adjustable pull high/low resistor for RS-422/485 (150 K Ω or 1 K Ω)

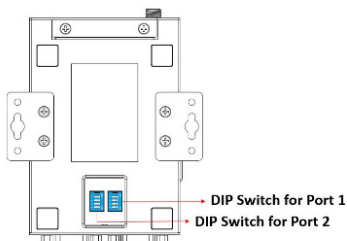
NPort 6150



Open the back door with a screwdriver and use the DIP switch to set the pull high/low resistors. The default is 150 k Ω . You can switch the SW1 and SW2 to ON and change the resistors value to 1 k Ω .

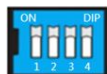
Do not use the 1 k Ω setting with RS-232 mode, since doing so will degrade the RS-232 signal and shorten the communication distance. In addition, you can switch the SW3 to ON and set the terminal resistor to 120 Ω .

NPort 6250



DIP Switch Setting

SW	1	2	3	4
	High	Low	Term.	x
ON	1K Ω	1K Ω	120 Ω	x
OFF Def.	150K Ω	150K Ω	--	x

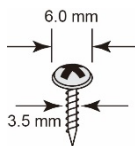


Hardware Installation Procedure

- STEP 1:** Connect the 12-48 VDC power adaptor to the NPort 6150 and then plug the power adaptor into a DC outlet.
- STEP 2:** For first-time configuration, use a cross-over Ethernet cable to connect the NPort 6150 directly to your computer's Ethernet cable. For connecting to a network, use a standard straight-through Ethernet cable to connect to a hub or switch.
- STEP 3:** Connect the NPort 6150's serial port to a serial device.

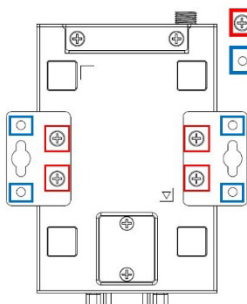
Placement Options

The NPort 6150/6250 device servers have built-in "ears" for attaching the device server to a wall or the inside of a cabinet. We suggest using two screws per ear to attach the device servers to a wall or the inside of a cabinet. The heads of the screws should be less than 6.0 mm in diameter, and the shafts should be less than 3.5 mm in diameter, as shown in the figure on the right.



The NPort 6150/6250 can be placed flat on a desktop or other horizontal surface. In addition, you may use the DIN-rail or wall-mount options, as illustrated below.

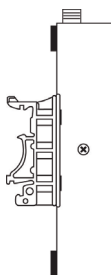
Wall-mount



Wall-mount Kit Screws
FMS M3 x 4mm

DIN-rail Kit Screws
FTS M3 x 8mm

DIN-rail



Software Installation Information

For the NPort's configuration, the default IP address of the NPort is 192.168.127.254. You may log in with the account name **admin** and password **moxa** to change any settings to meet your network topology (e.g., IP address) or serial device (e.g., serial parameters).

For software installation, download the relative utilities from Moxa's website:

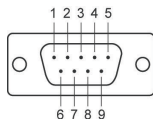
https://www.moxa.com/support/support_home.aspx?isSearchShow=1

- Download the NPort Windows Driver Manager and install it as the driver to run with Real COM mode of the NPort Series.
- Execute NPort Windows Driver Manager; then map the virtual COM ports on your Windows platform.
- You may refer to the DB9 Male 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.
- Use HyperTerminal or a similar program (you may download Moxa's program, called PComm Lite) to test whether the device is good or not.

Pin Assignments and Cable Wiring

RS-232/422/485 Pin Assignment (male DB9)

Pin	RS-232	RS-422 4-wire RS-485	2-wire RS-485
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	-	-	-



Two serial cables for connecting the NPort 6150 to a serial device can be purchased separately. The wiring diagrams for the two cables are shown below.



WARNING

The use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTE Complies with 21 CFR 1040.10 and 1040.11, except for conformance with IEC 60825-1 Ed. 3, as described in Laser Notice 56, dated May 8, 2019.