MOXA NPort 5600-8-DT Series Desktop Device Server Installation Guide

NPort 5600-8-DT
Quick Installation Guide
Version 5.1, January 2020

Contents

Technical Support Contact Information

www.moxa.com/support

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Overview

The NPort 5600-8-DT Series includes the following models:

- NPort 5610-8-DT: 8 ports, RS-232, DB9
- NPort 5610-8-DT-T: 8 ports, RS-232, DB9, -40 to 75°C operating temperature
- NPort 5610-8-DT-J: 8 ports, RS-232, RJ45
- NPort 5650-8-DT: 8 ports, RS-232/422/485, DB9
- NPort 5650-8-DT-T: 8 ports, RS-232/422/485, DB9, -40 to 75°C operating temperature
- NPort 5650-8-DT-J: 8 ports, RS-232/422/485, RJ45
- NPort 5650I-8-DT: 8 ports, RS-232/422/485, DB9, optical isolation
- NPort 5650I-8-DT-T: 8 ports, RS-232/422/485, DB9, optical isolation, -40 to 75°C operating temperature

Package Checklist

The NPort 5600-8-DT package should contain the following items:

- 1 x NPort 5600-8-DT 8-port serial device server
- 1 x 100 to 240 VAC power adapter (excluding –T models)
- 1 x power cord
- 1 x Ethernet cable: CBL-RJ458P-100
- 1 x wall-mount kit
- Quick installation guide
- Warranty card

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 – 48 VDC, minimum current 0.73 A).

Optional Accessories:

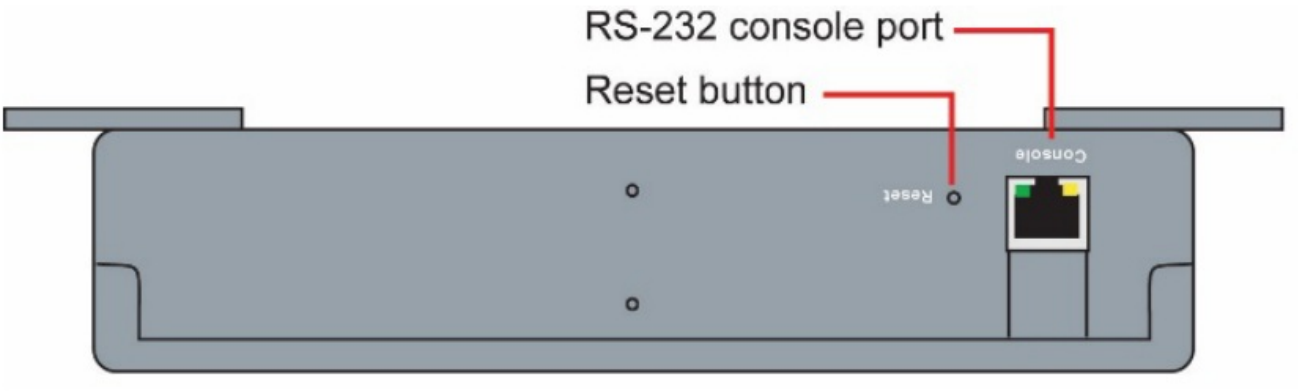
- DK-35A: DIN rail mounting kit (35 mm)
- CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable, 150 cm
- CBL-RJ45F9-150: 8-pin RJ45 to female DB9 cable, 150 cm
- CBL-RJ45M25-150: 8-pin RJ45 to male DB25 cable, 150 cm
- CBL-RJ45F25-150: 8-pin RJ45 to female DB25 cable, 150 cm

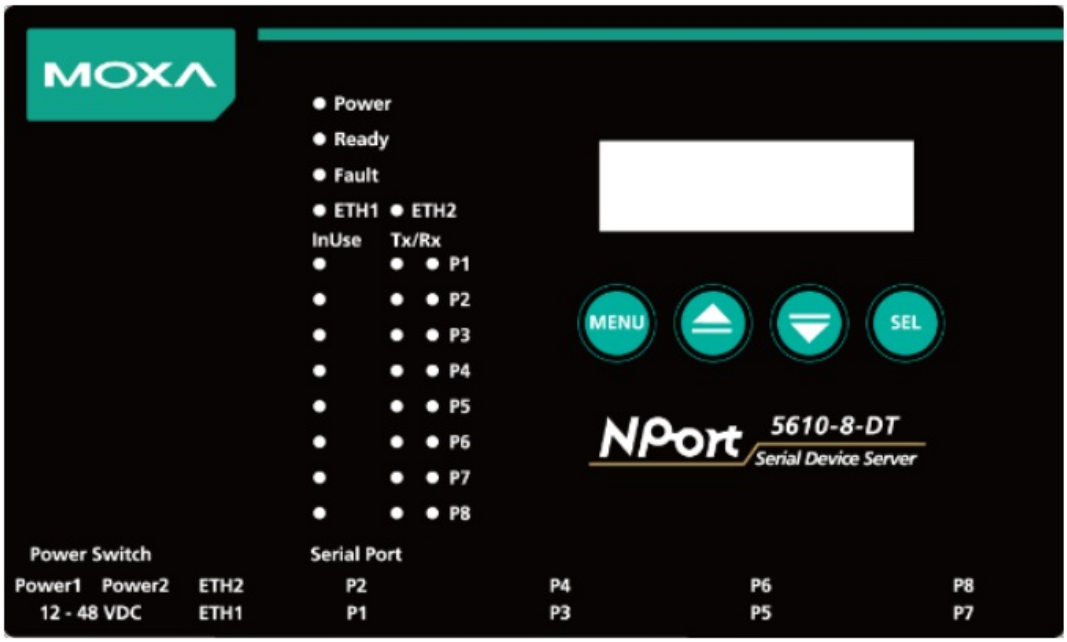
- NP21101: DB25-M to DB9-F RS-232 cable, 30 cm

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

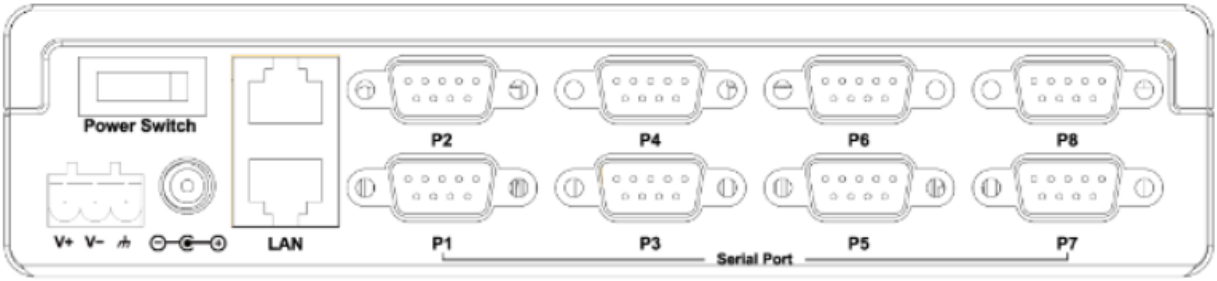
Hardware Introduction

Top and Rear View

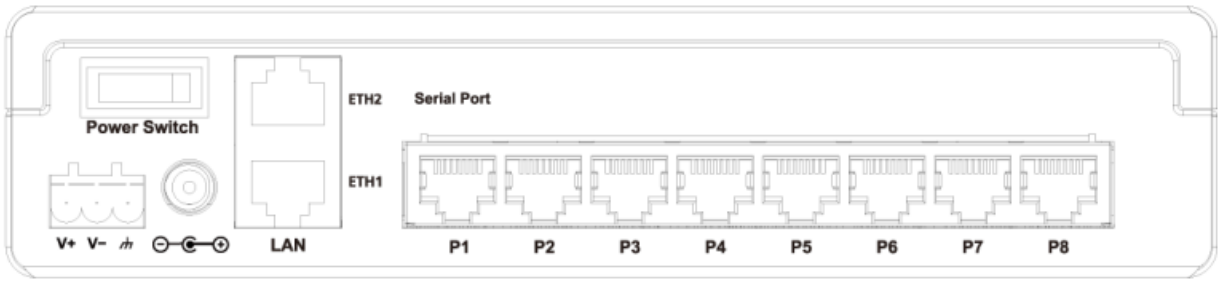




Front View (NPort 5610-8-DT, NPort 5610-8-DT-T, NPort 56508-DT, NPort 5650-8-DT-T, NPort 5650I-8-DT, NPort 5650I-8-DTT)



Front View (NPort 5610-8-DT-J, 5650-8-DT-J)



Reset Button
The reset button is used to load the factory defaults. Use a pointed object to hold the reset button down for five seconds. You may release the reset button when the Ready LED stops blinking.

LED Indicators

The LED indicators on the top panel are used to display status as follows:

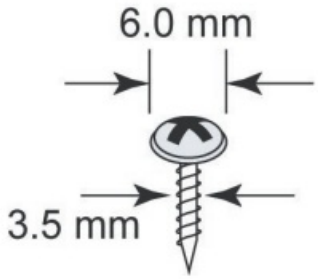
Name	Color	Function
PWR	Red	Power is on.
	Off	Power is off.
Ready	Green	Steady: NPort is operational Blinking: NPort is responding to NPort Administrator “Locate” function
	Off	Power is off or fault condition exists.
Fault	Red	IP conflict or DHCP or BOOTP server did not respond properly.
	Off	No fault condition detected.
ETH1	Green	Steady: Network is connected, no data is being transmitted. Blinking: Network is connected, data is being transmitted.
	Off	Ethernet cable is disconnected or has a short.
ETH2	Green	Steady: Network is connected, no data is being transmitted. Blinking: Network is connected, data is being transmitted.
	Off	Ethernet cable is disconnected or has a short.
InUse (P1 to P8)	Green	Serial port has been opened by server side software.
	Off	Serial port is not currently opened by server side software.
Tx/Rx (P1 to P8)	Green (Tx)	Serial device is transmitting data.
	Orange (Rx)	Serial device is receiving data.
	Off	No data is flowing to or from the serial port.

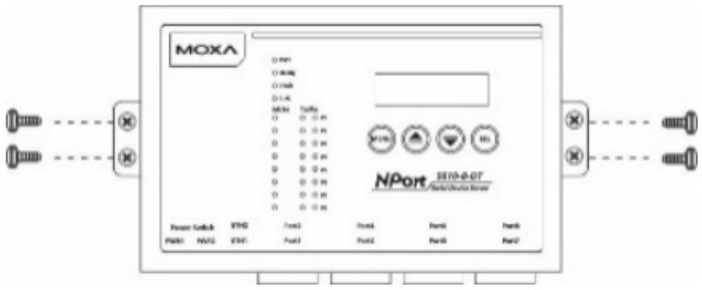
Hardware Installation

STEP 1: After removing the NPort 5600-8-DT from the box, place it on a desktop or other horizontal surface. Connect the 12-48 VDC power adaptor to the NPort 5600-8-DT's power input when using an AC power source, or connect the NPort 5600-8-DT's terminal block directly to a DC power source.
STEP 2: Use an Ethernet cable to connect the NPort 5600-8-DT to a network hub or switch. You can also connect directly to your computer's Ethernet port, which is convenient for initial configuration or testing.
STEP 3: Connect the NPort 5600-8-DT's serial port to a serial device.

Wall or Cabinet Mounting

The NPort 5600-8-DT comes with two metal attachment plates to allow installation on a wall or the inside of a cabinet. First, attach the brackets to the back of the NPort with screws. Next, mount the unit on a wall or cabinet with screws.
Screws should be less than 6.0 mm in head diameter, and less than 3.5 mm in shaft diameter.

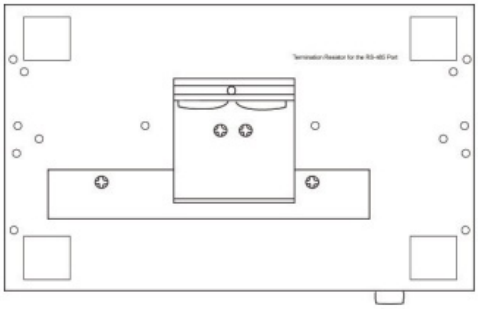


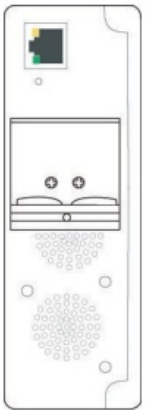


DIN Rail Mounting

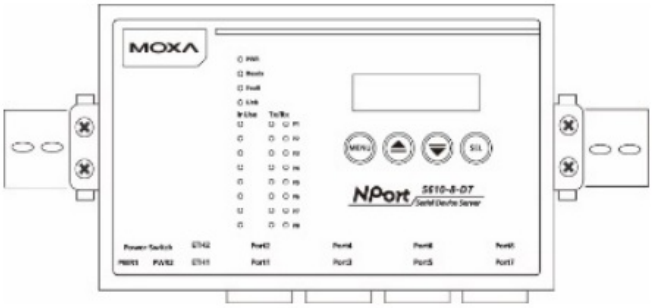
DIN-rail attachments can be purchased separately to attach the product to a DIN-rail. The DIN-rail attachments should be oriented with the metal springs on top.

Standard Attachment





DK-35A Attachment



Pull High/Low Resistors for RS-485

Use the set of DIP switches on the bottom panel to set the pull high/low resistor values for each serial port. To access the switches, remove the screws holding the DIP switch cover in place and flip open the cover.
There are three DIP switches for each port's pull high/low resistors:

Default

SW	1	2	3
	Pull High	Pull Low	Terminator
ON	1KΩ	1KΩ	120Ω
OFF	150K52	150K52	–

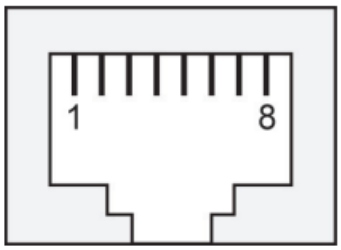
Software Installation Information

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 username admin and 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 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 user's manual, driver, Device Search Utility, and so on.

NOTE For security-related configuration, please refer to the manual's Cybersecurity Considerations chapter.
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 and Cable Wiring

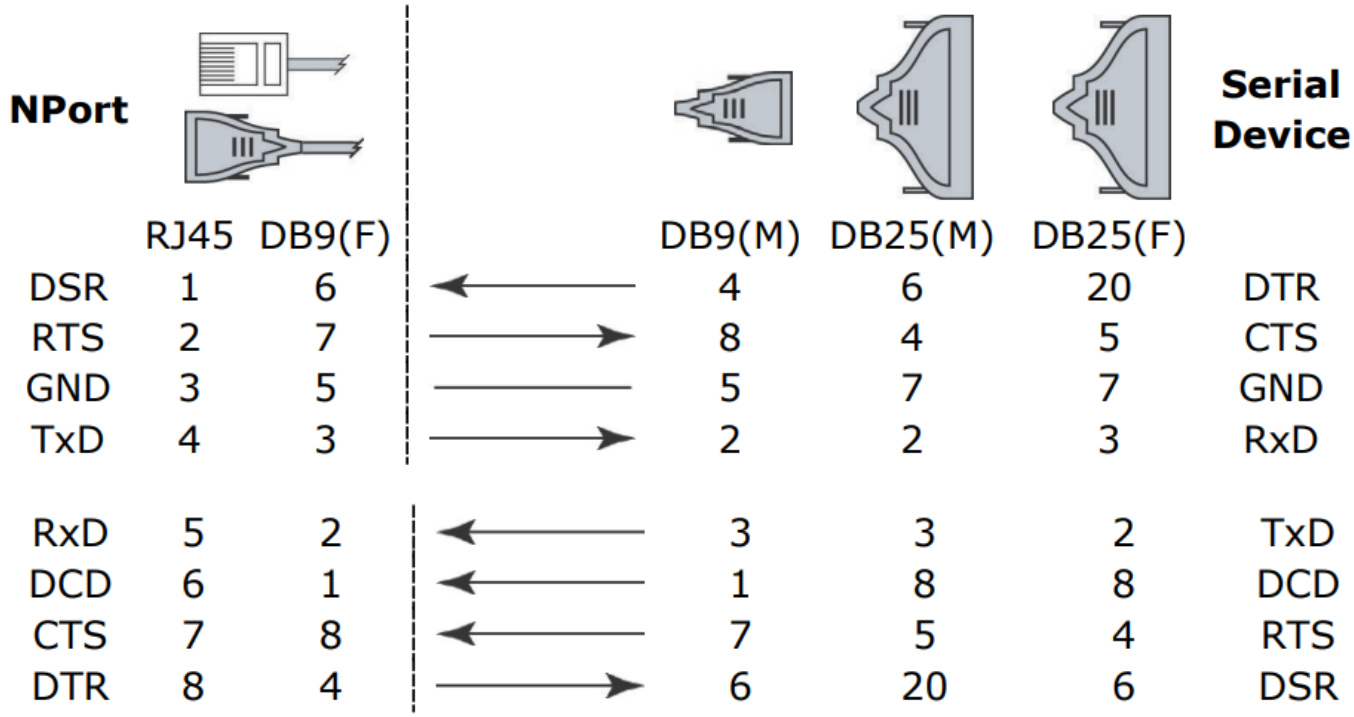
RJ45 Ports (NPort 5610-8-DT-J, 5650-8-DT-J)



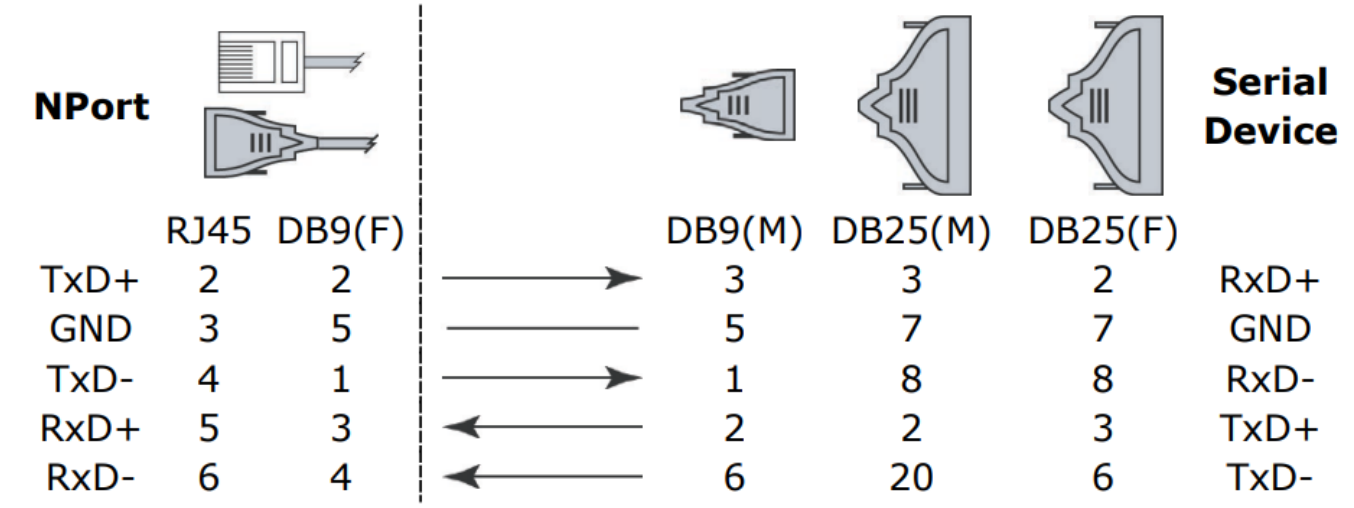
Pin	RS-232	RS-422 4-wire RS-485	2-wire RS- 485
1	DSR		
2	RTS	TxD+	
3	GND	GND	GND
4	TxD	TxD-	
5	RxD	RxD+	Data+
6	DCD	RxD-	Data-
7	CTS	–	–
8	DTR	–	–

NOTE The NPort 5610-8-DT-J supports RS-232 only.
DB9 Male Ports (NPort 5610-8-DT, 5650-8-DT, 5650I-8-DT)

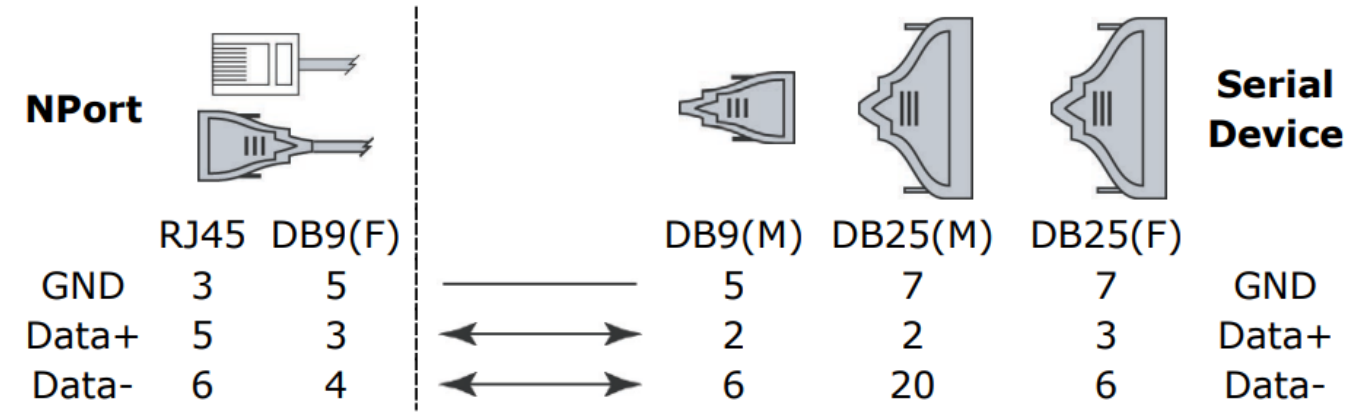
RS-232 Cables



RS-422, 4-wire RS-485 Cables



2-wire RS-485 Cables



Specifications

Power Requirements

Power Requirements	
Input Voltage	12 to 48 VDC NPort 5610-8-DT/NPort 5610-8-DT-T: 611 mA @ 12 VDC, 300 mA @ 24 VDC, 140 mA @ 48V NPort 5610-8-DT-J: 611 mA @ 12 VDC, 300 mA @ 24 VDC, 140 mA @ 48V NPort 5650-8-DT/NPort 5650-8-DT-T: 615 mA @ 12 VDC, 300 mA @ 24 VDC, 156 mA @ 48V NPort 5650-8-DT-J: 615 mA @ 12 VDC, 300 mA @ 24 VDC, 156 mA @ 48V NPort 5650I-8-DT/NPort 5650I-8-DT-T: 1,066 mA @ 12 VDC, 510 mA @ 24 VDC, 200 mA @ 48V
Certifications	
Regulatory Approvals	FCC Class A, CE Class A, UL, CUL, LVD

P/N: 1802056001016

Documents / Resources

	MOXA NPort 5600-8-DT Series Desktop Device Server [pdf] Installation Guide NPort 5600-8-DT Series Desktop Device Server, NPort 5600-8-DT Series, Desktop Device Server, Device Server, Server

References

- User Manual