NPort 5600-8-DTL Series
Quick Installation Guide

Version 3.3, January 2021

MOXA®

Overview

The NPort 5600-8-DTL series includes the following models:

- **NPort 5610-8-DTL:** 8 ports, RS-232, 0 to 60°C
- **NPort 5650-8-DTL:** 8 ports, RS-232/422/485, 0 to 60°C
- **NPort 5650I-8-DTL:** 8 ports, RS-232/422/485, 0 to 60°C, 2KV optical isolation.
- **NPort 5610-8-DTL-T:** 8 ports, RS-232, -40 to 75°C
- **NPort 5650-8-DTL-T:** 8 ports, RS-232/422/485, -40 to 75°C
- **NPort 5650I-8-DTL-T:** 8 ports, RS-232/422/485, 2KV optical isolation, -40 to 75°C

Package Checklist

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

- NPort 5600-8-DTL device server
- Wall mounting and DIN-Rail kits
- Stick-on pads
- Power adapter (not including T models)
- Quick installation guide (printed)
- Warranty card

*Optional Accessories**

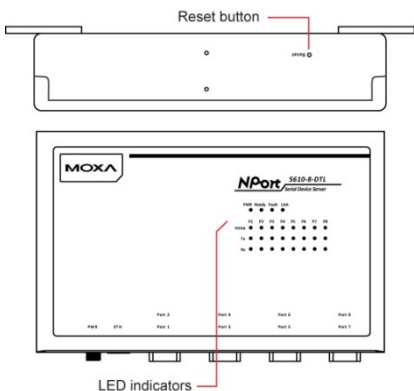- **DK-35A:** DIN-Rail mounting kit (35 mm)

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

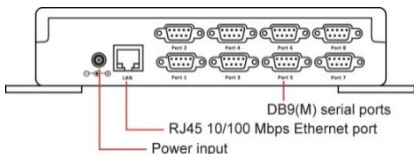*Optional Accessories can be ordered separately.

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). Moxa has power adapters with wide temperature range (-40 to 75°C, -40 to 167°F), the PWR-12150-(plug type)-SA-T series, for your reference.

Hardware Introduction

Top and Rear Views

Reset button

LED indicators

Front View

DB9(M) serial ports
RJ45 10/100 Mbps Ethernet port
Power input

Reset Button

Use a pointed object to hold the reset button down for at least five seconds to load the factory defaults. Release the reset button when the Ready LED stops blinking.

LED Indicators

The LED indicators on the top panel are used to display the 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 or NPort is resetting to factory default
	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.
Link	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.

| Name	Color	Function
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-DTL from the box, place it on a desktop or other horizontal surface. Connect the 12-48 VDC power adaptor to the NPort 5600-8-DTL's power input when using an AC power source, or connect the NPort 5600-8-DTL's terminal block directly to a DC power source.

STEP 2: Use an Ethernet cable to connect the NPort 5600-8-DTL 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-DTL's serial port to a serial device.
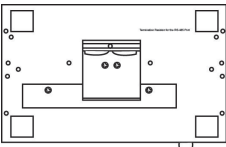
Wall or Cabinet Mounting

The NPort 5600-8-DTL 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.
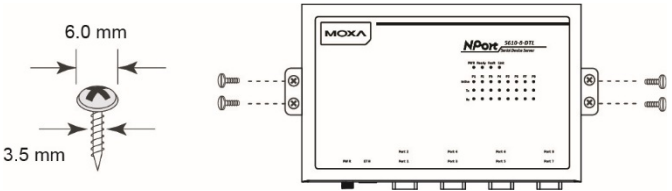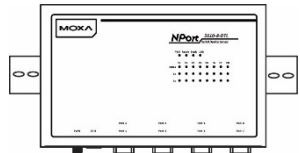

DIN-Rail Mounting

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**

> **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). Moxa has power adapters with wide temperature range (-40 to 75°C, -40 to 167°F), the PWR-12150-(plug type)-SA-T series, for your reference.

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

> **NOTE** If you have forgotten the NPort's IP address, use the Device Search Utility (DSU) from your PC to locate the NPort. After searching the LAN for NPort units, the DSU will display the IP address of each unit.

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). For first-time use, click the Wizard in the left navigation panel. The wizard will prompt you to configure the IP address, SSID, and security mode. For other settings, use the factory defaults or modify the settings for your application.

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 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.
- 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

Pin	RS-232	RS-422/ RS-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	–	–	–

DB9 Male Ports
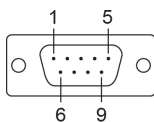
Note: The NPort 5610-8-DTL supports RS-232 only.

Specifications

LAN	
Ethernet Ports	10/100 Mbps (RJ45)
Protection	Built-in 1.5 KV magnetic isolation
Serial Interface	
RS-232	NPort 5610-8-DTL
RS-232/422/485	NPort 5650-8-DTL, 5650I-8-DTL
Serial Ports	8 (DB9-M connectors)
Isolation	2 KV isolation (NPort 5650I-8-DTL)
Serial Signals	
RS-232	TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
RS-422	Tx+, Tx-, Rx+, Rx-, GND
RS-485 (2-wire)	Data+, Data-, GND
RS-485 (4-wire)	Tx+, Tx-, Rx+, Rx-, GND
Serial Line Protection	15 KV ESD for all signals
RS-485 Data Direction	ADDC™ (Automatic Data Direction Control)
Serial Communication Parameters	
Parity	None, Even, Odd, Space, Mark
Data Bits	5, 6, 7, 8
Stop Bit(s)	1, 1.5, 2
Flow Control	RTS/CTS, DSR/DTR (for RS-232 only), XON/XOFF
Transmission Speed	50 bps to 921.6 Kbps
Power Requirements	
Power Input	12 to 48 VDC
Physical Characteristics	
Operating Temperature	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Humidity	5 to 95% RH
Material	SECC sheet metal (0.8 mm)
Dimensions	Without ears: 197 × 44 × 125 mm With ears: 229 × 46 × 125 mm With DIN-Rail kit: 197 × 52.8 × 125 mm
Certifications	
Regulatory Approvals	FCC Class A, CE Class A, UL 60950-1, LVD
Warranty	5 years