NPort W2250/2150
Quick Installation Guide

Second Edition, June 2008

1. Overview

NPort W2250/2150 Wireless Device Servers are the ideal choice for connecting your RS-232/422/485 serial devices—such as PLCs, meters, and sensors—to an IP-based wireless LAN and Ethernet LAN. Access your software and serial devices from anywhere over a wireless LAN or the Internet.

NPort W2250/2150 have the following features:

- Connect serial devices to an 802.11b wireless LAN
- 2 or 1 RS-232/422/485 ports (selected by software)
- 10/100M Ethernet port for accessing the web console
- TCP Server, TCP Client, UDP, and COM driver modes supported
- Auto MDI/MDIX function

2. Package Checklist

Before installing NPort W2250/2150, verify that the package contains the following items:

- 1 NPort W2250 or NPort W2150
- Documentation and Software CD
- RJ45 to RJ45 cross-over Ethernet cable
- RJ45 to male DB9 cable (CBL-RJ45M9-150)
- Power adaptor
- Warranty booklet
- Quick Installation Guide

Optional Accessories

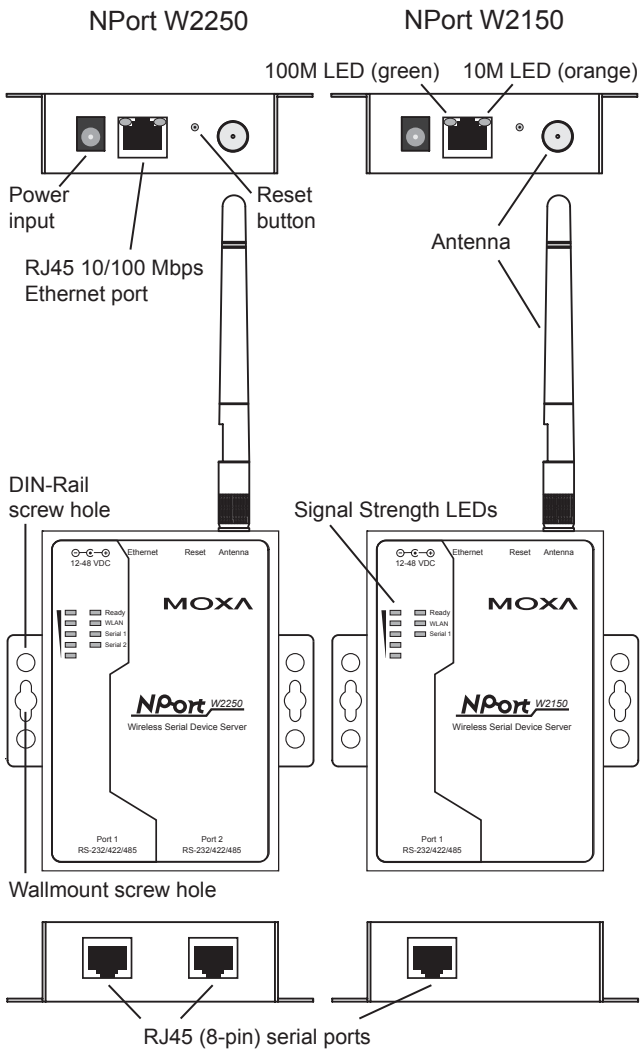
- DK-35A DIN-Rail Mounting Kit (35 mm)
- CBL-RJ45M9-150 RJ45 (8-pin) to DB9 (M) cable, 150 cm
- CBL-RJ45F9-150 RJ45 (8-pin) to DB9 (F) cable, 150 cm
- CBL-RJ45M25-150 RJ45 (8-pin) to DB25 (M) cable, 150 cm
- CBL-RJ45F25-150 RJ45 (8-pin) to DB25 (F) cable, 150 cm

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

P/N: 18020215000

3. Hardware Introduction

NPort W2150 has 1 RS-232/422/485 serial port and 1 10/100M Ethernet port, and NPort W2250 has 2 RS-232/422/485 serial ports and 1 10/100M Ethernet port. All ports use 8-pin RJ45 connectors.



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.

Top Panel LED Indicators

Name	Color	Function
Ready	red	Steady on: Power is on and NPort is booting up. Blinking: Indicates a LAN IP conflict, or that the DHCP or BOOTP server did not respond properly.
	green	Steady on: Power is on and NPort is functioning normally. Blinking: The device server has been located by the NPort Search Utility.
	off	Power is off, or a power error condition exists.
WLAN	green	Steady on: Wireless enabled. Blinking: Indicates a WLAN IP conflict, or that the DHCP or BOOTP server did not respond properly.
Serial 1 Serial 2	orange	Serial port is receiving data.
	green	Serial port is transmitting data.
	off	No data is being transmitted or received through the serial port.
Signal Strength (5 LEDS)	green	The number of lit LEDS indicates the WLAN signal strength. When [0 / 1 / 2 / 3 / 4 / 5] LEDs are lit, the corresponding WLAN status is [Connection Fail / Bad / Fair / Good / Very Good / Excellent].

End Panel LED Indicators

Name	Color	Function
Ethernet	orange	10 Mbps Ethernet connection.
	green	100 Mbps Ethernet connection.
	off	Ethernet cable is disconnected, or has a short.

4. First-time Hardware Installation Procedure

STEP 1: After removing NPort W2250/2150 from the box, use a cross-over Ethernet cable to connect the NPort's RJ45 Ethernet port directly to your computer's Ethernet port.

STEP 2: Attach the power adaptor to the NPort and then plug the adaptor into an electrical outlet.

STEP 3: Configure the NPort W2250/2150 via the Ethernet port. See the next section for software installation information.

NOTE You must connect the Ethernet cable first before powering up your NPort.

5. Software Installation Information

To install the COM driver, first insert the Document & Software CD into your computer's CD-ROM drive. When the installation window opens, click on the **Install COM Driver** button, and then follow the on-screen instructions.

To see detailed information about NPort W2250/2150, click on the **Documents** button, and then select "NPort W2250/2150 User's Manual" to open the pdf version of the manual.

An NPort Search Utility is also included on the Documentation & Software CD. The NPort Search Utility is used to search for NPort W2250/2150 units on the network. To install the utility, first insert the Documentation & Software CD into your computer's CD-ROM drive. When the installation window opens, click on the **Install UTILITY** button, and then follow the on-screen instructions.

6. Initializing NPort W2250/2150's IP Address

Factory Default IP Addresses

LAN: Static; IP/netmask = 192.168.126.254/255.255.255.0
WLAN Static; IP/netmask = 192.168.127.254/255.255.255.0
(If the LAN or WLAN is configured for DHCP, but the DHCP server cannot be found, the IP addresses will revert to the above default values.)

NOTE If you forget the IP address, you can use the NPort Search utility (from your PC) to locate the NPort W2250/2150 unit over the network. You will be able to view the IP address on the screen.

NOTE Only one of the two network interfaces can be active at any given time. If the Ethernet link is active, the WLAN will be inactive. If the WLAN is active, the Ethernet link will be inactive.

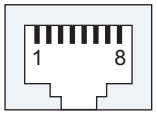
Web Console

Follow these steps to access NPort W2250/2150's web console.

STEP 1: Open your web browser
STEP 2: Type 192.168.126.254 (the default LAN IP) in the browser's address input box.
STEP 3: The NPort W2250/2150 homepage will open. The current configuration settings will be displayed.
STEP 4: For first time users, click on the **Wizard**, and then configure the IP address, SSID, WEP mode, WEP key index, and WEP key. For other selection items, you can use the default settings, or change the settings to match your specific environment.

7. Serial Port Pin Assignments

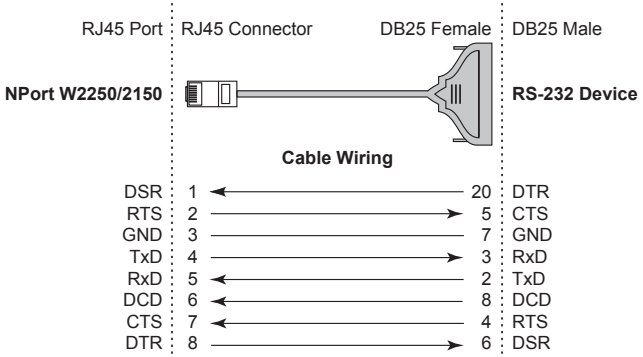
Pin	RS-232	RS-422	4W RS-485	2W RS-485
1	DSR	---	---	---
2	RTS	TxD+	TxD+	---
3	GND	GND	GND	GND
4	TxD	TxD-	TxD-	---
5	RxD	RxD+	RxD+	Data+
6	DCD	RxD-	RxD-	Data-
7	CTS	---	---	---
8	DTR	---	---	---



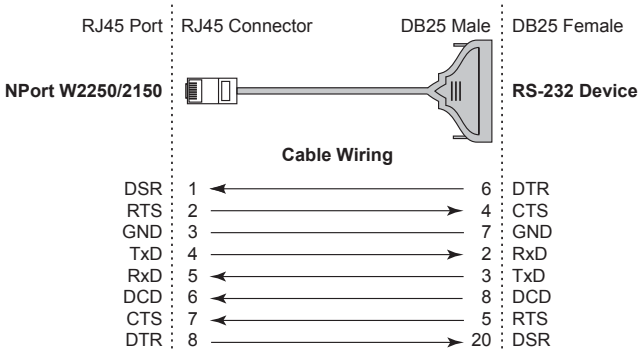
8. Cable Wiring Diagrams

In this section, we show the wiring diagrams for the four optional cables. These cables are used most often for RS-232 applications.

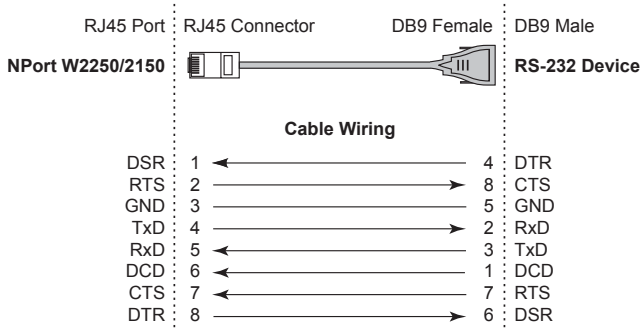
CBL-RJ45F25-150 (8-pin RJ45 to Female DB25)



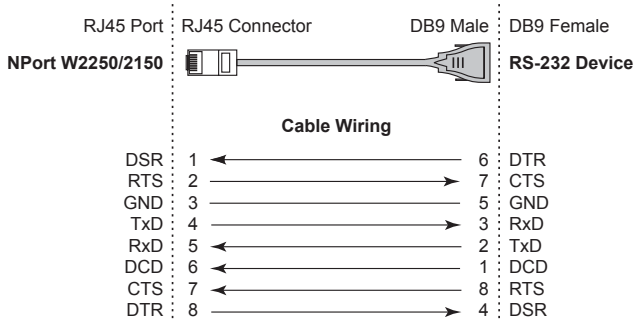
CBL-RJ45M25-150 (8-pin RJ45 to Male DB25)



CBL-RJ45F9-150 (8-pin RJ45 to Female DB9)



CBL-RJ45M9-150 (8-pin RJ45 to Male DB9)



9. Specifications

Power input	12 to 48 VDC
Power consumption	250 mA @ 12V; 138 mA @ 24V
Material	Aluminum sheet metal (1 mm)
Body dimensions	77 x 111 x 26 mm (without ears or antenna) 100 x 111 x 26 mm (without antenna)
Antenna length	109 mm
Magnetic isolation	1.5 KV for Ethernet
Operating temperature	0 to 55°C (32 to 131°F) at 5 to 95% RH
Storage temperature	-20 to 85°C (-4 to 185°F) at 5 to 95% RH
EMC	FCC Class A, CE Class A
Safety	UL, CUL, TÜV

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