

# NPort Z2150 Series Quick Installation Guide

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## Overview

The NPort Z2150 is a reliable wireless serial I/O with support for serial to ZigBee communications. The NPort Z2150 can act as a ZigBee Coordinator, ZigBee Router or ZigBee End Device. Any serial device can be connected by the NPort Z2150 and exchange data via Personal Area Network (PAN).

## Package Checklist

Before installing the NPort Z2150, verify that the package contains the following items:

### Standard Accessories

- NPort Z2150
- 2.4 GHz, omni-directional antenna
- Documentation & Software CD
- Quick installation guide (printed)
- Warranty card

### Optional Accessories

- DK-35A: DIN-rail mounting kit (35 mm)

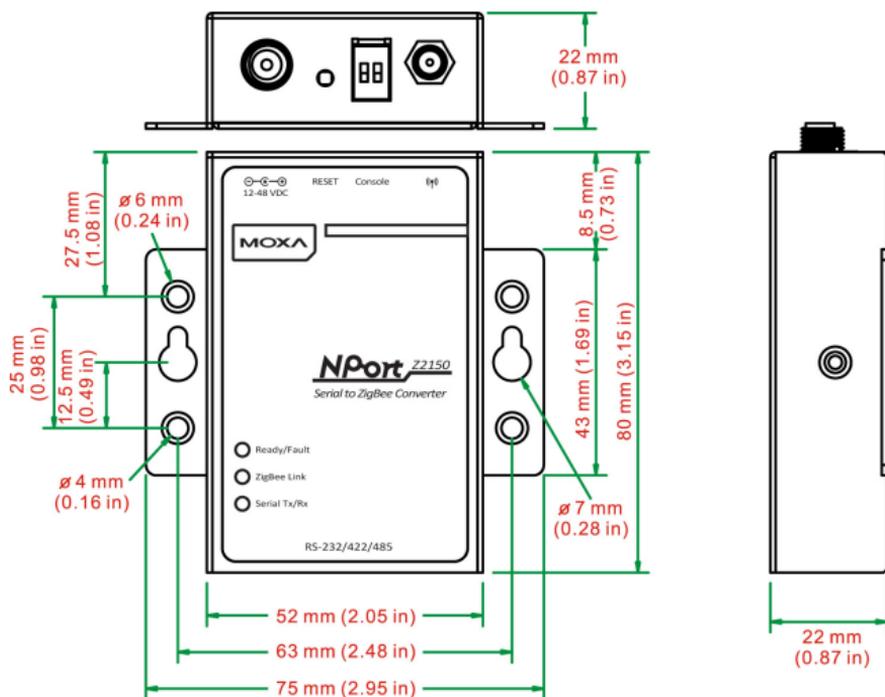
*NOTE: Please notify your sales representative if any of the above items are missing or damaged.*

## Hardware Introduction

### LED Indicators

LED	Color	Descriptions
Ready/Fault	Green	On: System power is on Blinking: Pull down the reset button
	Red	Blinking: 1) Node ID conflict 2) Destination node ID disappeared
ZigBee Link	Green	Coordinator: ON: ZigBee PAN initialized successfully Blinking: ZigBee Tx/Rx Off: ZigBee PAN initialization failure
		Router: On: Joined ZigBee PAN successfully Blinking: ZigBee Tx/Rx Off: Failure to join ZigBee PAN
		End Device: On: Joined ZigBee PAN successfully Blinking: ZigBee Tx/Rx Off: Failure to join ZigBee PAN/ parent node removed
Serial Tx/Rx	Green	Serial data output to serial port
	Orange	Serial data input from serial port

The NPort Z2150 models have one serial port. All models support RS-232/422/485 with DB9 connectors.

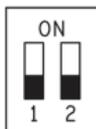


## Reset Button

The reset button is used to load factory defaults. Use a pointed object such as a straightened paper clip to hold the reset button down for five seconds. Release the reset button when the Ready LED stops blinking.

## DIP Switch

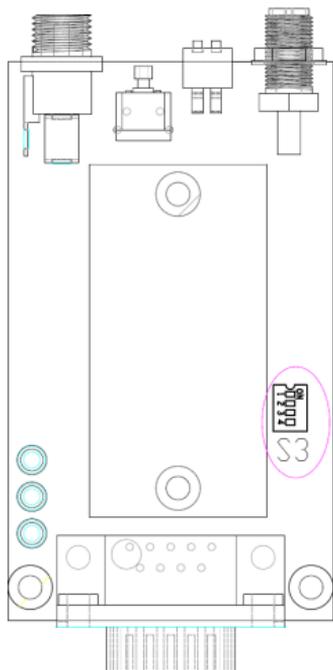
Serial Connection	1
Console Mode	ON
Operation Mode	OFF



**NOTE** 2 reserved for future use.

## Pull High/Low Resistors for RS-422/485

You may need to set the pull high/low resistors when termination resistors are used for certain RS-422 or RS-485 environments.



	SW	1	2	3	4
		Pull High	Pull Low	Terminator	Reserved
Default	ON	1 K $\Omega$	1 K $\Omega$	120 K $\Omega$	–
	OFF	150 K $\Omega$	150 K $\Omega$	–	–

**NOTE** Do not use the 1K $\Omega$  setting while in RS-232 mode. Doing so will degrade the RS-232 signals and reduce the effective communication distance.

## First-time Hardware Installation

- STEP 1:** After removing the NPort Z2150 from the box, set the DIP-switch to console mode and use a cross-over serial cable to connect the NPort's DB9 serial port directly to your computer's serial port to configure.
- STEP 2:** Attach the power adaptor to the NPort and then plug the adaptor into an electrical outlet.
- STEP 3:** Configure the NPort Z2150 through the serial port. See the next section for software installation information.

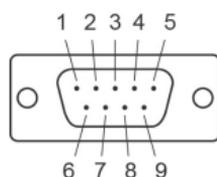
## Software Installation Information

Insert the Documentation & Software CD. A window should open with several options displayed:

- Click **Documents** and select "NPort Z2150 Series User's Manual" to view the user's manual.
- Click **Install Utility** and follow the on-screen instructions to install the ZigBee Configuration Utility. This utility can be used to search for NPort Z2150 units via serial ports.

## Pin Assignments and Cable Wiring

PIN	RS-232	RS-422, 4w RS-485	2w 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	-	-	-



## Specifications

Power Requirements	
Input Voltage	12 to 48 VDC
Power Consumption	45 mA @ 12 V
Connector	Power Jack
Physical Characteristics	
Weight	340 g
Dimension	
Without ears:	52 x 80 x 22 mm (2.05 x 3.15 x 0.87 in)
With ears:	75 x 80 x 22 mm (2.95 x 3.15 x 0.87 in)
Regulatory Approvals	
EMC	CE (EN 55032 Class A, EN 55024), FCC Part 15 Subpart B Class A
Safety	UL (UL 60950-1), LVD (EN 60950-1)



### WARNING

1. This equipment is intended to be used in a Restricted Access Location.
2. This product is intended to be supplied by an UL 60950-1 and IEC 60950-1 certified power supply marked "LPS" and rated output rating: 12 to 48 VDC, 45 mA @ 12 V minimum, 75°C.