

# NPort® P5150A Series

## 1-port RS-232/422/485 PoE serial device servers



- > IEEE 802.3af-compliant PoE PD equipment
- > Speedy 3-step web-based configuration
- > Surge protection for serial, Ethernet, and power lines
- > COM port grouping and UDP multicast applications
- > Screw connectors for secure installation
- > Real COM/TTY drivers for Windows and Linux
- > Standard TCP/IP interface and versatile TCP and UDP operation modes



### Overview

NPort® P5150A device servers are designed to make serial devices network-ready in an instant. It is a PD device and is IEEE 802.3af compliant, so it can be powered by a PoE PSE device without an additional power supply. Use the NPort® P5150A device servers to

give your PC software direct access to serial devices from anywhere on the network. The NPort® P5150A device servers are ultra lean, ruggedized, and user friendly, making simple and reliable serial to Ethernet solutions possible.

### Surge-protected Serial, Ethernet, and Power Lines

Surge, which is typically caused by high voltages that result from switching and lightning transients, is a common threat to all electrical devices. Moxa's leading-edge surge immunity solution, which is applied to the NPort® P5150A's serial, power, and Ethernet lines, is tested and proven compliant with IEC 61000-4-5. This state-of-the-

art surge protection provides a robust serial-to-Ethernet solution that can protect electrical devices from voltage spikes and withstand electrically noisy environmental conditions.



### 3-step Web-based Configuration

The NPort® P5150A's 3-step web-based configuration tool is straightforward and user-friendly. The NPort® P5150A's web console guides users through 3 simple configuration steps that are necessary to activate the serial-to-Ethernet application. With this speedy 3-step

web-based configuration, a user only needs to spend an average of 30 seconds to complete the NPort® settings and enable the application, saving a great amount of time and effort.



### Easy to Troubleshoot

NPort® P5150A device servers support SNMP, which can be used to monitor all units over Ethernet. Each unit can be configured to send trap messages automatically to the SNMP manager when user-defined errors are encountered. For users who do not use SNMP manager, an

e-mail alert can be sent instead. Users can define the trigger for the alerts using Moxa's Windows utility, or the web console. For example, alerts can be triggered by a warm start, a cold start, or a password change.

### Appearance

#### NPort® P5150A

#### DK-35A DIN rail Kit



Available Accessory



## Specifications

### Ethernet Interface

**Number of Ports:** 1

**Speed:** 10/100 Mbps, auto MDI/MDIX

**Connector:** 8-pin RJ45

**Magnetic Isolation Protection:** 1.5 kV built-in

### Serial Interface

**Number of Ports:** 1

**Serial Standards:**

NPort P5150A: RS-232/422/485

**Connector:** DB9 male

**Serial Line Protection:** 15 kV ESD protection for all signals, Level 2 Surge, EN61000-4-5

**RS-485 Data Direction Control:** ADDC® (automatic data direction control)

**Pull High/Low Resistor for RS-485:** 1 k $\Omega$ , 150 k $\Omega$

### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8

**Stop Bits:** 1, 1.5, 2

**Parity:** None, Even, Odd, Space, Mark

**Flow Control:** RTS/CTS and DTR/DSR (RS-232 only), XON/XOFF

**Baudrate:** 50 bps to 921.6 kbps

### Serial Signals

**RS-232:** TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

**RS-422:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485-4w:** Tx+, Tx-, Rx+, Rx-, GND

**RS-485-2w:** Data+, Data-, GND

### Software

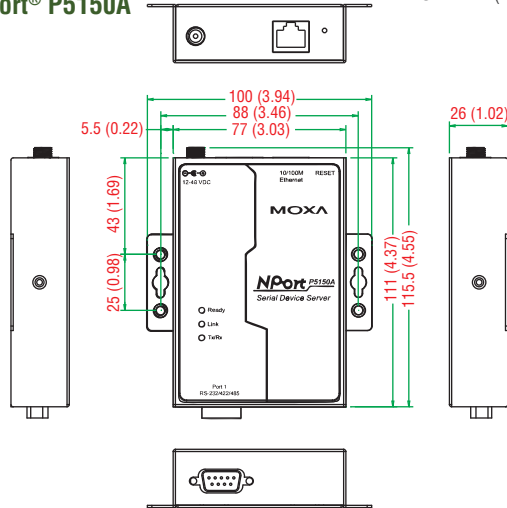
**Network Protocols:** ICMP, IPv4, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1, HTTP, SMTP, IGMP V1/2

**Configuration Options:** Web Console (with new Quick Setup), Serial Console, Telnet Console, Windows Utility

### Dimensions

#### NPort® P5150A

Unit: mm (inch)



**Windows Real COM Drivers:** Windows 95/98/ME/NT/2000, Windows

XP/2003/Vista/2008/7/8/8.1 (x86/x64), Windows 2008 R2/2012/2012

R2 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded

**Fixed TTY Drivers:** SCO Unix, SCO OpenServer, UnixWare 7, QNX

4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X

**Linux Real TTY Drivers:** Linux 2.4.x, 2.6.x, 3.x

### Physical Characteristics

**Housing:** Metal

**Weight:** 300 g

**Dimensions:**

Without ears: 77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in)

With ears: 100 x 111 x 26 mm (3.94 x 4.37 x 1.02 in)

### Environmental Limits

**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 75°C (-40 to 167°F)

**Ambient Relative Humidity:** 5 to 95% (non-condensing)

**Altitude:** Up to 2000 m

**Note:** Please contact Moxa if you require products guaranteed to function properly at higher altitudes.

### Power Requirements

**Input Voltage:** 12 to 48 VDC (supplied by power adapter) or 48 VDC (supplied by PoE)

**Power Consumption:**

125 mA @ 12 V, 40 mA @ 48 VDC (supplied by power adapter)

180 mA @ 48 V (supplied by PoE)

### Standards and Certifications

**Safety:** UL 60950-1, EN 60950-1

**EMC:** CE, FCC

**EMI:** EN 55022 Class A, FCC Part 15 Subpart B Class A

**EMS:** EN 55024

**Power Line Protection:**

EN 61000-4-4(EFT) Level 2,

EN 61000-4-5(Surge) Level 3

### Reliability

**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)

**MTBF (mean time between failures):** 2,231,530 hrs

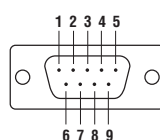
### Warranty

**Warranty Period:** 5 years

**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

### Pin Assignment

**DB9 male connector**



**NPort® P5150A (RS-232/422/485)**

PIN	RS-232	RS-422/485-4w	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	—	—

## Ordering Information

### Available Models

**NPort P5150A:** 1-port RS-232/422/485 PoE device server, 0 to 60°C operating temperature

**NPort P5150A-T:** 1-port RS-232/422/485 PoE device server, -40 to 75°C operating temperature

### Optional Accessories (can be purchased separately)

**DK-35A:** Mounting kit for 35-mm DIN-Rail

**Mini DB9F-to-TB Adapter:** DB9 female to terminal block adapter for RS-422/485 applications

### Package Checklist

- NPort P5150A device server
- 4 stick-on pads
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card