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 by 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

Power input
Screw power jack
12 to 48 VDC

Ethernet
RJ45 PoE
10/100 Mbps

Reset button

RS-232/422/485

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 KΩ, 150 KΩ

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
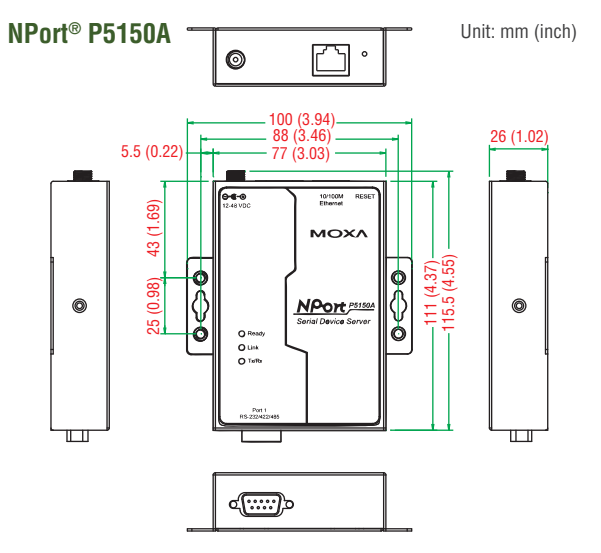**Baudrate:** 50 bps to 921.6 Kbps

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, IP, 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
Windows Real COM Drivers: Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7 x86/x64

Fixed TTY Drivers: SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac 10.3
Linux Real TTY Drivers: Linux kernel 2.4.x, 2.6.x, 3.0.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)
Storage Temperature: -40 to 75°C (-40 to 167°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

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:
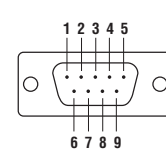EN 61000-4-4(EFT) Level 2,
EN 61000-4-5(Surge) Level 3

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

Dimensions

NPort® P5150A   Unit: mm (inch)

Pin Assignment

DB9 male connector

1 2 3 4 5
6 7 8 9

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
Optional Accessories (can be purchased separately)
DK-35A: Mounting Kit for 35-mm DIN-Rail

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

MOXA®