

NPort P5150A Series

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



Features and Benefits

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

Certifications



Introduction

NPort® P5150A device servers are designed to make serial devices network-ready in an instant. It is a power 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 Protection for Serial, Ethernet, and Power

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 email 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



Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
Magnetic Isolation Protection	1.5 kV (built-in)
Standards	PoE (IEEE 802.3af)

Ethernet Software Features

Configuration Options	<ul style="list-style-type: none"> Web Console (HTTP/HTTPS) Windows Utility Device Search Utility (DSU) Telnet Console Serial Console MCC Tool
Management	<ul style="list-style-type: none"> ARP BOOTP DHCP Client DNS HTTP HTTPS ICMP IPv4 LLDP SMTp SNMPv1/v2c TCP/IP Telnet UDP
Filter	IGMP v1/v2
Windows Real COM Drivers	<ul style="list-style-type: none"> Windows 11, 10, 8.1, 8, 7, Vista, XP, ME, 98, and 95 Windows Server 2022, 2019, 2016, 2012 R2, 2012, 2008 R2, 2008, 2003, 2000, and NT Windows Embedded CE 5.0 and 6.0, Windows XP Embedded
Linux Real TTY Drivers	Kernel versions: 6.x, 5.x, 4.x, 3.x, 2.6.x, and 2.4.x
Fixed TTY Drivers	<ul style="list-style-type: none"> macOS versions: 14, 13, 12, 11, and 10.1x SCO UNIX, SCO OpenServer, UnixWare 7, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X
Arm®-based Platform Support	<ul style="list-style-type: none"> Windows 11 Linux Kernel 6.x, 5.x, and 4.x

	macOS 14, 13, 12, and 11
Virtual Machine	VMWare ESXi (Windows 11/10) VMware Fusion (Windows on macOS 14, 13, 12, 11, and 10.1x) Parallels Desktop (Windows on macOS 14, 13, 12, 11, and 10.1x)
Android API	Android 3.1.x and later
MIB	RFC1213, RFC1317
Serial Interface	
Connector	DB9 male
No. of Ports	1
Serial Standards	RS-232 RS-422 RS-485
Operation Modes	Disabled Ethernet Modem Pair Connection Real COM Reverse Telnet RFC2217 TCP Client TCP Server UDP
Baudrate	Supports standard baudrates (unit=bps): 50, 75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k, 460.8k, 921.6k
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS DTR/DSR XON/XOFF
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	Automatic Data Direction Control (ADDC)
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
Power Parameters	
Input Current	DC Jack I/P: 125 mA @ 12 VDC PoE I/P: 180 mA @ 48 VDC
Input Voltage	12 to 48 VDC (supplied by power adapter) 48 VDC (supplied by PoE)
No. of Power Inputs	1
Source of Input Power	Power input jack PoE

Reliability

Automatic Reboot Trigger	Built-in WDT
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Physical Characteristics

Housing	Metal
Dimensions (with ears)	100 x 111 x 26 mm (3.94 x 4.37 x 1.02 in)
Dimensions (without ears)	77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in)
Weight	300 g (0.66 lb)

Environmental Limits

Operating Temperature	NPort P5150A: 0 to 60°C (32 to 140°F) NPort P5150A-T: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 3 V/m; Signal: 3 V/m IEC 61000-4-8 PFMF IEC 61000-4-11
Safety	EN 62368-1 UL 60950-1

MTBF

Time	2,231,530 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

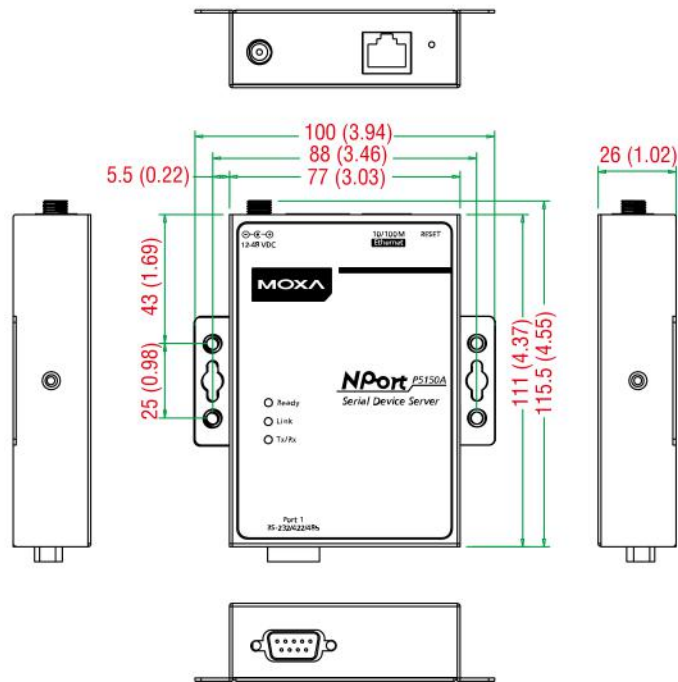
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x NPort P5150A Series device server
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

Unit: mm (inch)



Ordering Information

Model Name	Operating Temp.	Baudrate	Serial Standards	No. of Serial Ports	Input Voltage
NPort P5150A	0 to 60°C	50 bps to 921.6 kbps	RS-232/422/485	1	12-48 VDC by power adapter or 48 VDC by PoE
NPort P5150A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-232/422/485	1	12-48 VDC by power adapter or 48 VDC by PoE

Accessories (sold separately)

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm

Connectors

ADP-RJ458P-DB9F	DB9 female to RJ45 connector
Mini DB9F-to-TB	DB9 female to terminal block connector

DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm
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Power Adapters

PWR-12050-USJP-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, US/JP plug, 0 to 40°C operating temperature
PWR-12050-EU-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, EU plug, 0 to 40°C operating temperature
PWR-12050-CN-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, CN plug, 0 to 40°C operating temperature
PWR-12050-UK-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, UK plug, 0 to 40°C operating temperature
PWR-12050-AU-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, AU plug, 0 to 40°C operating temperature
PWR-12150-AU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, AU plug, -40 to 75°C operating temperature
PWR-12150-CN-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, CN plug, -40 to 75°C operating temperature

PWR-12150-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, EU plug, -40 to 75°C operating temperature
PWR-12150-UK-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, UK plug, -40 to 75°C operating temperature
PWR-12150-USJP-SA-T	Locking barrel plug, 12 VDC 1.5 A, 100 to 240 VAC, US/JP plug, -40 to 75°C operating temperature

Power Cords

CBL-PJ21NOPE-BK-30	Locking barrel plug to bare-wire cable
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