NPort 5200 Series

2-port RS-232/422/485 serial device servers



Features and Benefits

- Compact design for easy installation
- Socket modes: TCP server, TCP client, UDP
- Easy-to-use Windows utility for configuring multiple device servers
- Patented ADDC® (Automatic Data Direction Control) for 2-wire and 4-wire RS-485
- SNMP MIB-II for network management

Certifications

Introduction

The NPort® 5200 serial device servers are designed to make your industrial serial devices Internet-ready in no time. The compact size of NPort 5200 serial device servers makes them the ideal choice for connecting your RS-232 (NPort 5210/5230/5210-T/5230-T) or RS-422/485 (NPort 5230/5232/5232I/5230-T/5232-T/5232I-T) serial devices—such as PLCs, meters, and sensors—to an IP-based Ethernet LAN, making it possible for your software to access serial devices from anywhere over a local LAN or the Internet. The NPort 5200 Series has a number of useful features, including standard TCP/IP protocols and choice of operation modes, Real COM/TTY drivers for existing software, and remote control of serial devices with TCP/IP or traditional COM/TTY Port.

Standard TCP/IP Protocols and Choice of Operation Modes

NPort 5200 device servers can operate in TCP Server, TCP Client, or UDP operation mode, ensuring compatibility with software based on a standard network API (Winsock, BSD Sockets).

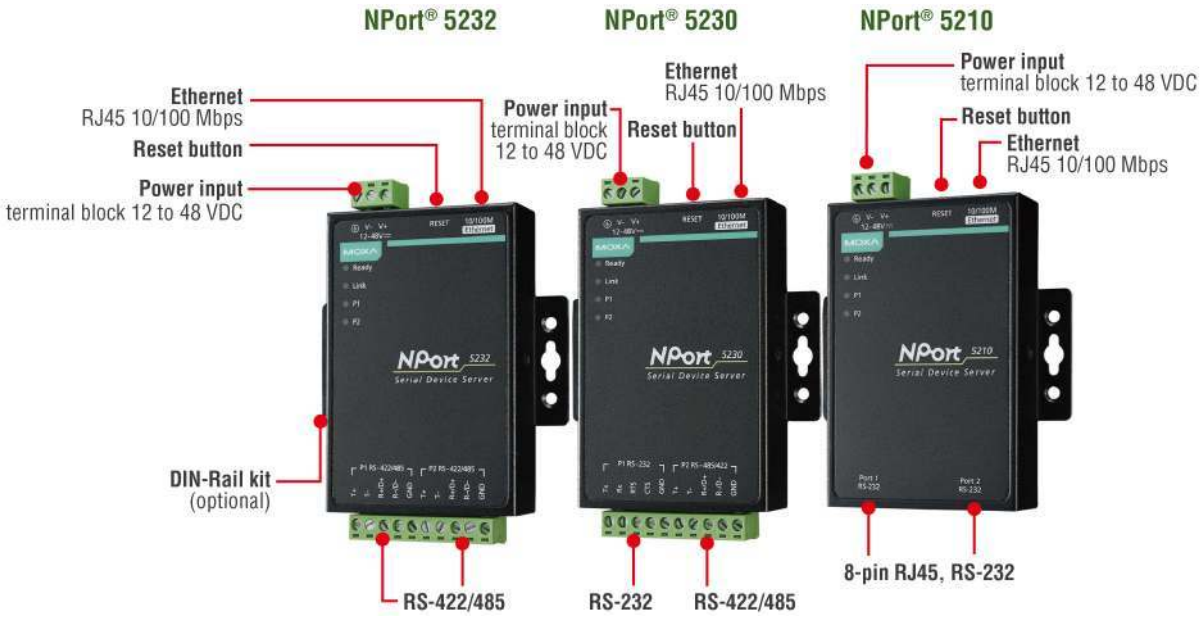
Real COM/TTY Drivers for Existing Software

With the Real COM/TTY drivers that are provided with each NPort, software designed for communication with COM/TTY ports can be instantly and seamlessly integrated into a TCP/IP network. This is an excellent no fuss way to preserve your software investment and enjoy the benefits of networking your serial devices.

Control Remote Serial Devices with TCP/IP or Traditional COM/TTY Port

By specifying the NPort 5200's IP address and port number, a network sockets API can obtain access to the attached serial device over the network, from any host computer that supports TCP/IP. For legacy Windows or Linux software that is COM or TTY-based, Moxa's COM/TTY drivers provide a seamless way of operating over the network.

Appearance



Specifications

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	1
Magnetic Isolation Protection	1.5 kV (built-in)

Ethernet Software Features

Configuration Options	Windows Utility, Telnet Console, Web Console (HTTP), Serial Console
Management	DHCP Client, IPv4, SNTP, SMTP, SNMPv1, DNS, HTTP, ARP, BOOTP, UDP, TCP/IP, Telnet, ICMP
Windows Real COM Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (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, macOS 10.12, macOS 10.13, macOS 10.14, macOS 10.15
Linux Real TTY Drivers	Kernel versions: 2.4.x, 2.6.x, 3.x, 4.x, and 5.x
Android API	Android 3.1.x and later
MIB	RFC1213, RFC1317

Serial Interface

Connector	NPort 5210 Models: 8-pin RJ45 NPort 5230/5232 Models: Terminal block
No. of Ports	2
Serial Standards	NPort 5210 Models: RS-232 NPort 5230 Models RS-232/422/485[1] NPort 5232 Models: RS-422/485
Operation Modes	Disabled, Ethernet Modem, Pair Connection, Real COM, Reverse Telnet, TCP Client, TCP Server, UDP
Baudrate	Supports standard baudrates (unit=bps): 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230400

1. The NPort 5230 Models supports RS-232 on one port, and RS-422/485 on the other.

Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS (RS-232 only), DTR/DSR (RS-232 only), XON/XOFF
Pull High/Low Resistor for RS-485	NPort 5210/5232I Models: None NPort 5230 Models: 150 kilo-ohms NPort 5232 Models: 1 kilo-ohms
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Isolation	NPort 5232I Models: 2 kV

Serial Signals

RS-232	NPort 5210 Models: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND NPort 5230 Models: TxD, RxD, RTS, CTS, 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	NPort 5210/5230 Models: 325 mA @ 12 VDC NPort 5232/5232I Models: 280 mA @ 12 VDC, 365 mA @ 12 VDC
Input Voltage	12 to 48 VDC
No. of Power Inputs	1
Power Connector	1 removable 3-contact terminal block(s)

Reliability

Automatic Reboot Trigger	Built-in WDT
Alert Tools	Built-in buzzer and RTC (real-time clock)

Physical Characteristics

Housing	Metal
Dimensions (with ears)	NPort 5210/5230/5232/5232-T Models: 90 x 100.4 x 22 mm (3.54 x 3.95 x 0.87 in) NPort 5232I/5232I-T Models: 90 x 100.4 x 35 mm (3.54 x 3.95 x 1.37 in)
Dimensions (without ears)	NPort 5210/5230/5232/5232-T Models: 67 x 100.4 x 22 mm (2.64 x 3.95 x 0.87 in) NPort 5232I/5232I-T: 67 x 100.4 x 35 mm (2.64 x 3.95 x 1.37 in)
Weight	NPort 5210 Models: 340 g (0.75 lb) NPort 5230/5232/5232-T Models: 360 g (0.79 lb) NPort 5232I/5232I-T Models: 380 g (0.84 lb)
Installation	Desktop, DIN-rail mounting (with optional kit), Wall mounting

Environmental Limits

Operating Temperature	Standard Models: 0 to 55°C (32 to 131°F) Wide Temp. Models: -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 55032/24
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: 1 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 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	UL 60950-1
Maritime	NPort 5230/5232 Models: DNV
Medical	NPort 5210 Models: EN 55011: 2007+A2: 2007 Class A (Group 1) compliant EN 60601-1-2: 2007 compliant

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	NPort 5210 Models: 381,342 hrs NPort 5230 Models: 377,937 hrs NPort 5232 Models: 309,383 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

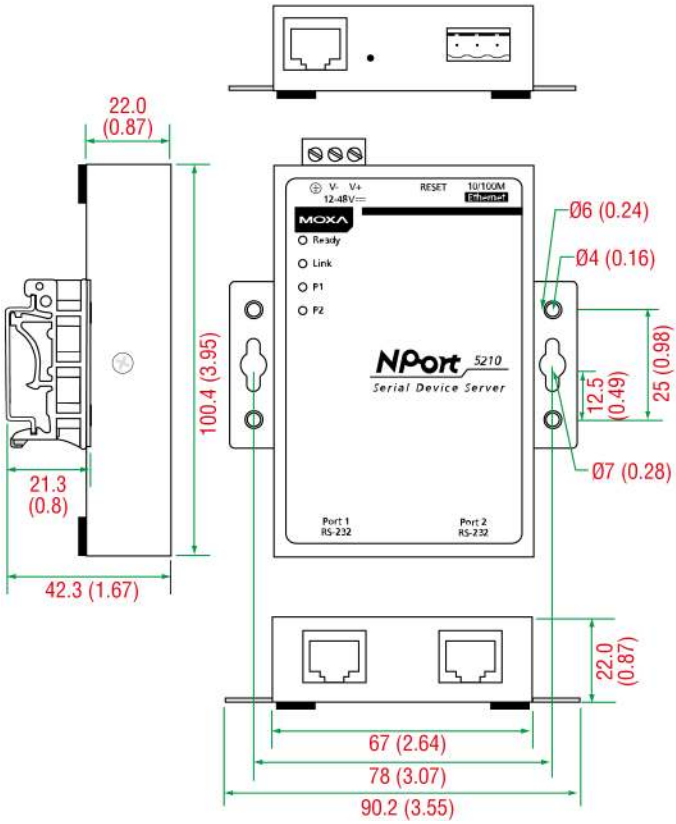
Package Contents

Device	1 x NPort 5200 Series device server
Documentation	1 x quick installation guide 1 x warranty card

Dimensions

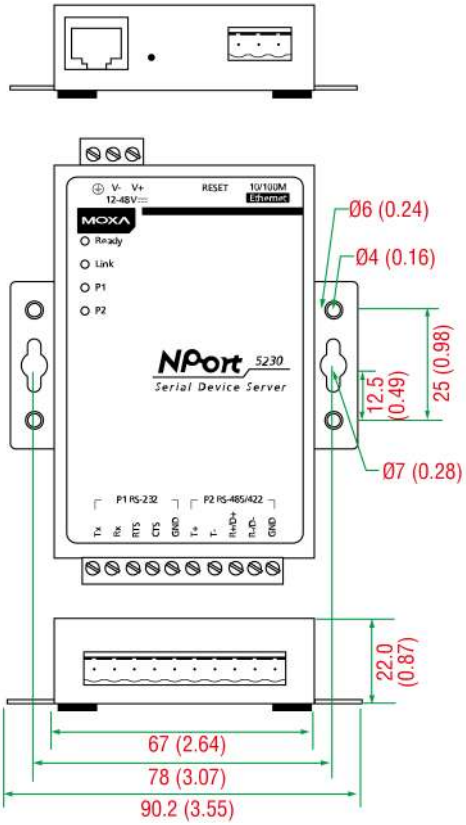
NPort 5210

Unit: mm (inch)



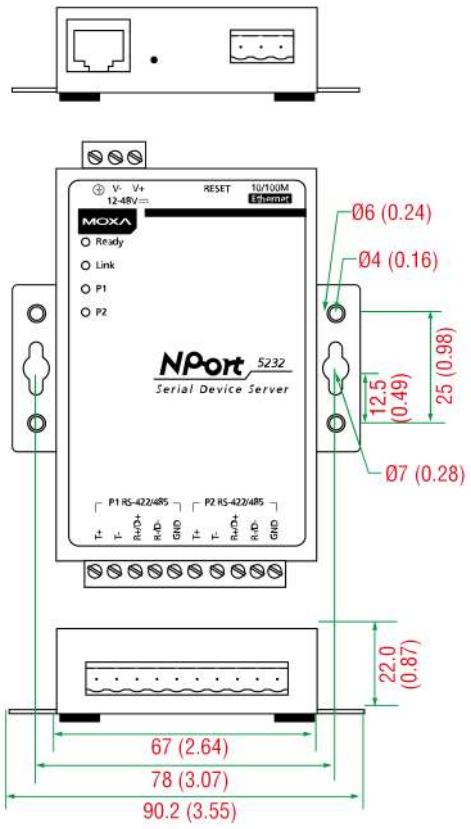
NPort 5230

Unit: mm (inch)



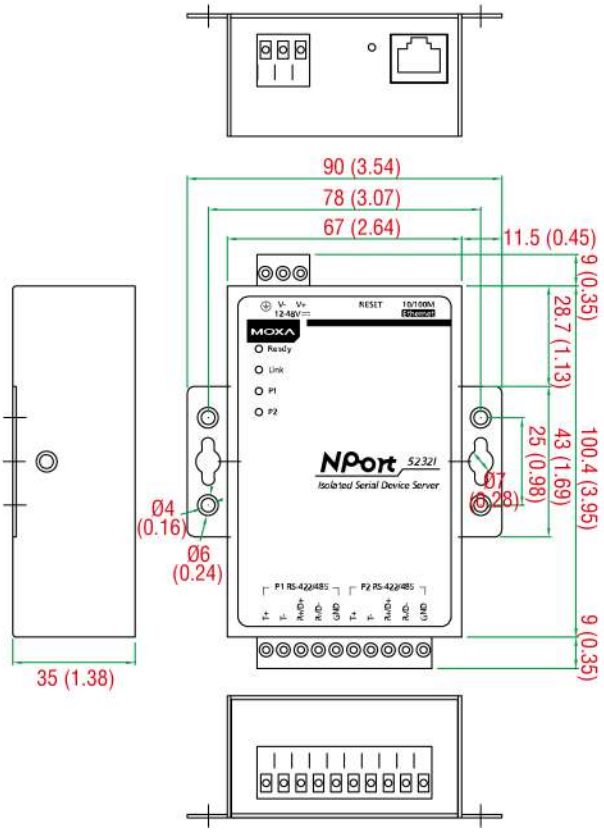
NPort 5232

Unit: mm (inch)



NPort 5232I

Unit: mm (inch)



Ordering Information

Model Name	Operating Temp.	Baudrate	Serial Standards	Serial Isolation	No. of Serial Ports	Input Voltage
NPort 5210	0 to 55°C	110 bps to 230.4 kbps	RS-232	–	2	12-48 VDC
NPort 5210-T	-40 to 75°C	110 bps to 230.4 kbps	RS-232	–	2	12-48 VDC
NPort 5230	0 to 55°C	110 bps to 230.4 kbps	RS-232/422/485	–	2	12-48 VDC
NPort 5230-T	-40 to 75°C	110 bps to 230.4 kbps	RS-232/422/485	–	2	12-48 VDC
NPort 5232	0 to 55°C	110 bps to 230.4 kbps	RS-422/485	–	2	12-48 VDC
NPort 5232-T	-40 to 75°C	110 bps to 230.4 kbps	RS-422/485	–	2	12-48 VDC
NPort 5232I	0 to 55°C	110 bps to 230.4 kbps	RS-422/485	2 kV	2	12-48 VDC
NPort 5232I-T	-40 to 75°C	110 bps to 230.4 kbps	RS-422/485	2 kV	2	12-48 VDC

Accessories (sold separately)

Cables

CBL-RJ45F25-150	8-pin RJ45 to DB25 female serial cable, 1.5 m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45F9-150	8-pin RJ45 to DB9 female serial cable, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45M9-150	8-pin RJ45 to DB9 male serial cable, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45M25-150	8-pin RJ45 to DB25 male serial cable, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45SF25-150	8-pin RJ45 to DB25 female serial cable with shielding, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45SF9-150	8-pin RJ45 to DB25 male serial cable with shielding, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45SM25-150	8-pin RJ45 to DB9 female serial cable with shielding, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45SM9-150	8-pin RJ45 to DB9 male serial cable with shielding, 1.5m Applicable Models: NPort 5210 NPort 5210-T

Connectors

ADP-RJ458P-DB9F	DB9 female to RJ45 connector Applicable Models: NPort 5210 NPort 5210-T

DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm

Power Adapters

PWR-12150-AU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100-240 VAC, Australia (AU) plug, -40 to 75°C operating temperature Applicable Models: NPort 5210-T NPort 5230-T NPort 5232-T NPort 5232-T (CV-CT) NPort 5232I-T
PWR-12150-CN-SA-T	Wide-temperature (-40 to 75°C) locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, China (CN) plug Applicable Models: NPort 5210-T NPort 5230-T NPort 5232-T NPort 5232-T (CV-CT) NPort 5232I-T
PWR-12150-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100-240 VAC, Continental Europe (EU) plug, -40 to 75°C operating temperature Applicable Models: NPort 5210-T NPort 5230-T NPort 5232-T NPort 5232-T (CV-CT) NPort 5232I-T
PWR-12150-UK-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100-240 VAC, United Kingdom (UK) plug, -40 to 75°C operating temperature Applicable Models: NPort 5210-T NPort 5230-T NPort 5232-T NPort 5232-T (CV-CT) NPort 5232I-T
PWR-12150-USJP-SA-T	Locking barrel plug, 12 VDC 1.5 A, 100-240 VAC, United States/Japan (US/JP) plug, -40 to 75°C operating temperature Applicable Models: NPort 5210-T NPort 5230-T NPort 5232-T NPort 5232-T (CV-CT) NPort 5232I-T
PWR-12050-WPUSJP-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, United States/Japan (US/JP) plug, 0 to 40°C operating temperature
PWR-12050-WPEU-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, Continental Europe (EU) plug, 0 to 40°C operating temperature
PWR-12050-WPUK-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, United Kingdom (UK) plug, 0 to 40°C operating temperature
PWR-12050-WPAU-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100-240 VAC, Australia (AU) plug, 0 to 40°C operating temperature
PWR-12050-WPCN-S2	Non-locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, China (CN) plug, 0 to 40°C operating temperature

Power Cords

CBL-PJ21NOPEN-BK-30	Locking barrel plug to bare-wire cable

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