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
- 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 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 6.0 and 5.0, 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	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	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

Security Functions

Authentication	Local database (password only)

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
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 models: None NPort 5230/5232/5232I models: 1 kilo-ohms (fixed value)
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: 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)

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

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: 360 g (0.79 lb) NPort 5232I/5232I-T: 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 55032/35
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: 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 5210/5210-T: 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

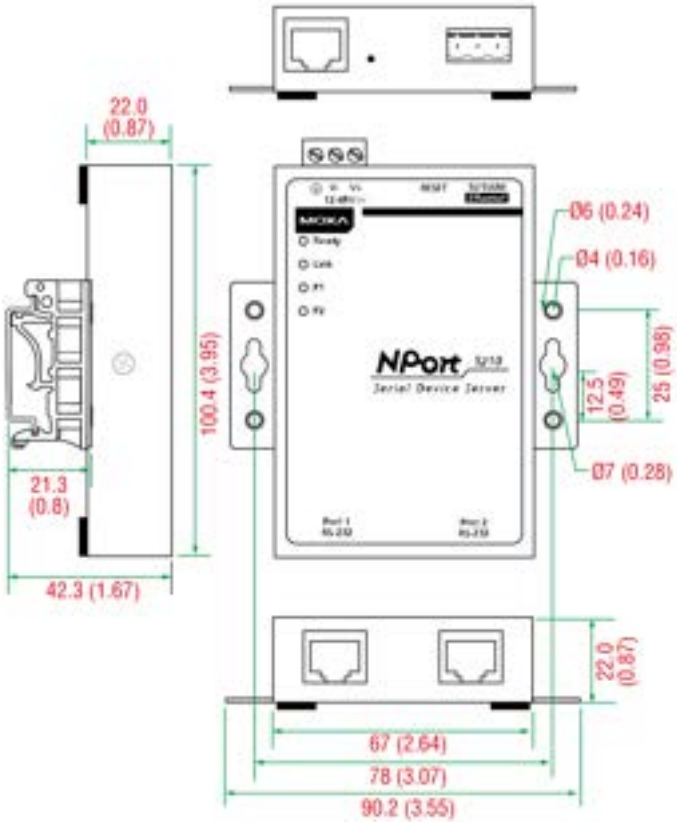
Package Contents

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

Dimensions

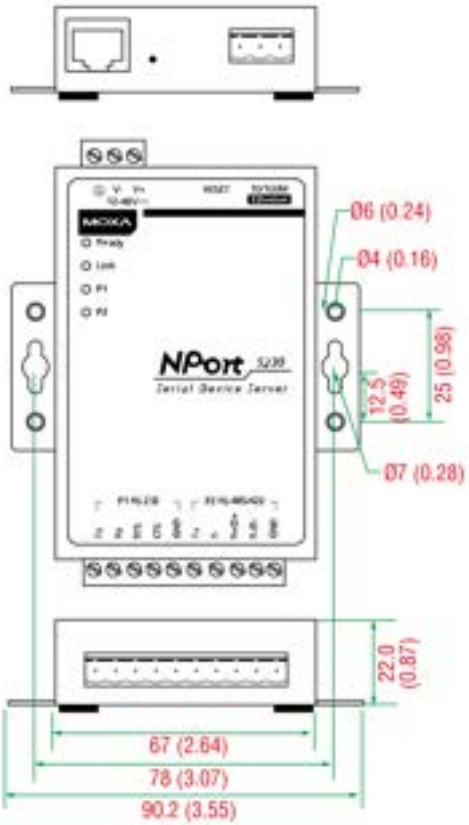
NPort 5210

Unit: mm (inch)



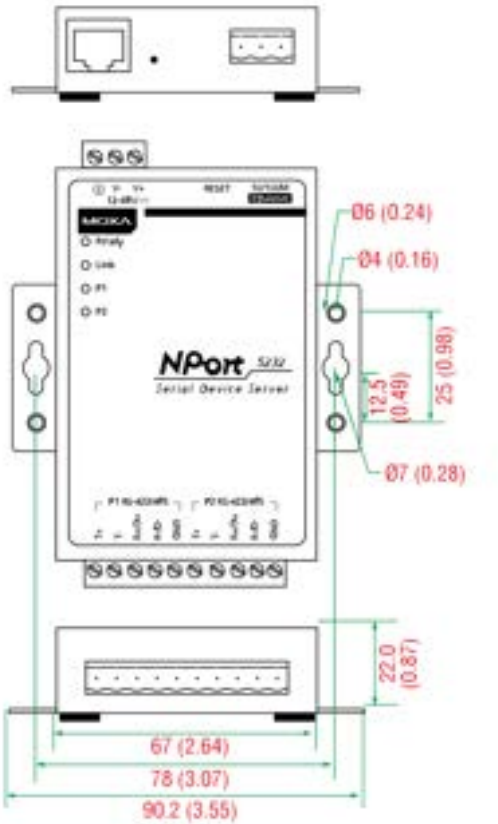
NPort 5230

Unit: mm (inch)



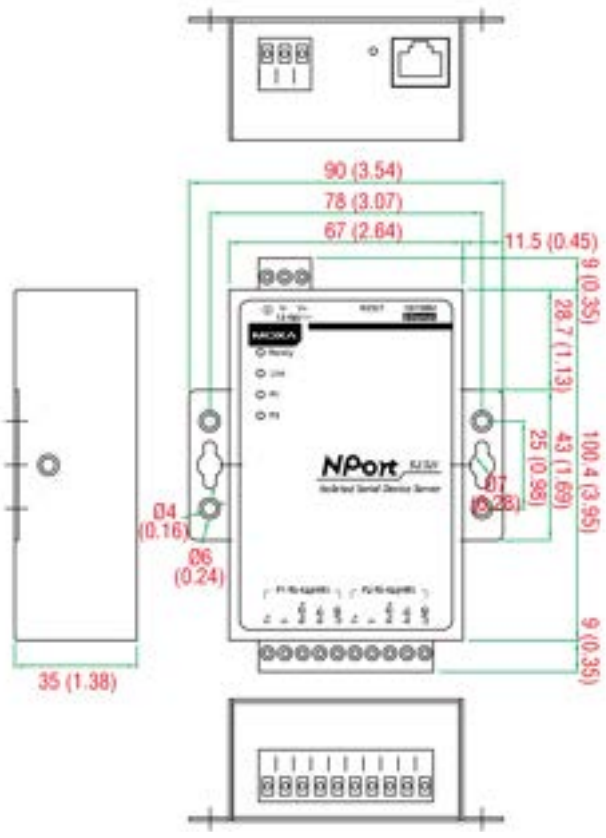
NPort 5232

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 DB9 female serial cable with shielding, 1.5m Applicable Models: NPort 5210 NPort 5210-T
CBL-RJ45SM25-150	8-pin RJ45 to DB25 male 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 to 240 VAC, 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	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, CN 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-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, 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 to 240 VAC, 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 to 240 VAC, 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-USJP-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, US/JP plug, 0 to 40°C operating temperature
PWR-12050-EU-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, EU plug, 0 to 40°C operating temperature
PWR-12050-CN-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, CN plug, 0 to 40°C operating temperature
PWR-12050-IN-S2	PWR-12050-IN-S2
PWR-12050-UK-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, UK plug, 0 to 40°C operating temperature
PWR-12050-AU-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, AU plug, 0 to 40°C operating temperature
PWR-12050-KR-S2	Unlocking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, KR plug, 0 to 40°C operating temperature

Power Cords

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

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