

NPort 5200 Series

2-port Serial Device Servers



Features

- > Makes serial devices Internet ready
- > Versatile socket operation modes, including TCP Server, TCP Client, UDP
- > Easy mass installation with Windows utility
- > Small size
- > 10/100 Mbps Ethernet
- > 2 or 4-wire RS-485 with patented Automatic Data Direction Control (ADDC™)
- > Built-in 15 KV ESD protection for all serial signals
- > Supports SNMP MIB-II for network management



Standard TCP/IP Interface and Versatile 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

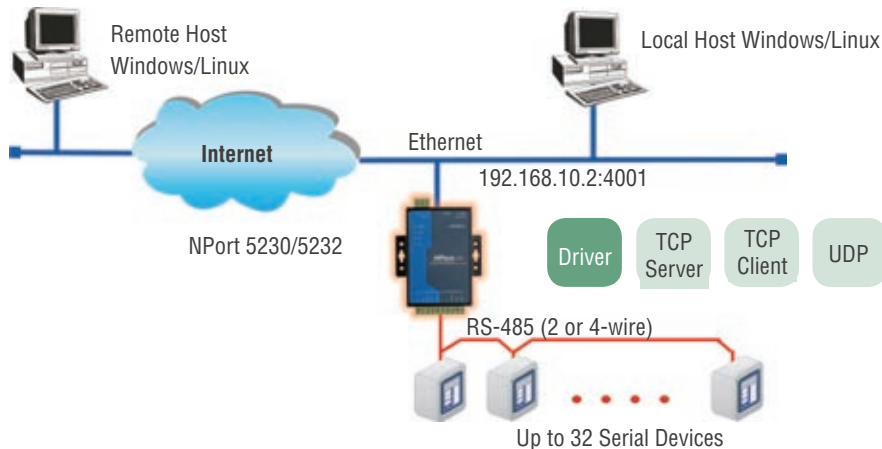
an excellent way to preserve your software investment and enjoy the benefits of networking your serial devices, with no fuss.

Typical Application

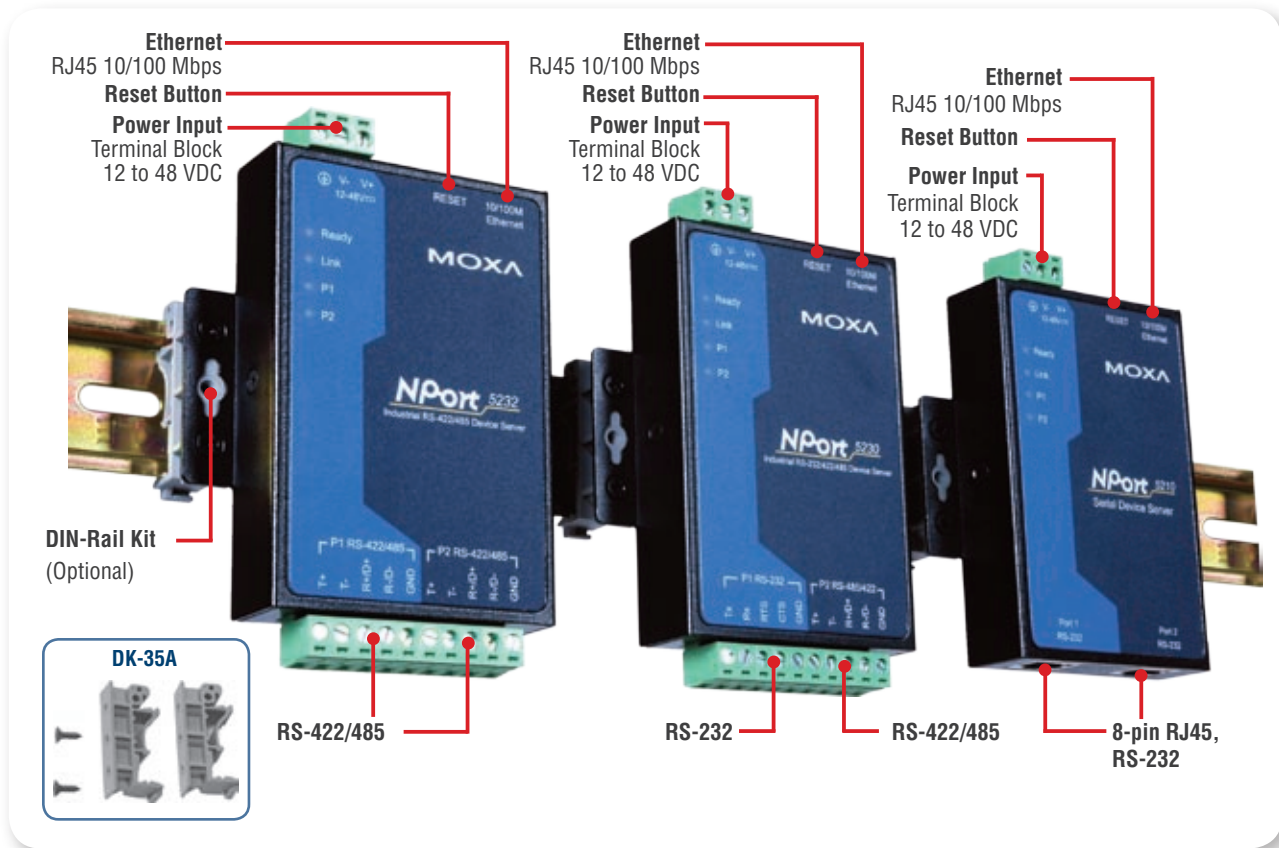
Control Remote Serial Devices Using TCP/IP or Traditional COM/TTY Port

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 to operate over the Internet.

COM Driver or Network Socket Operation



NPort 5232, 5230, 5210



Ordering Information

- NPort 5210:** 2-port RS-232 serial device server
- NPort 5210-T:** NPort 5210, -40 to 75°C operating temperature
- NPort 5230:** 2-port serial device server with 1 RS-232 port, 1 RS-422/485 port
- NPort 5230-T:** NPort 5230, -40 to 75°C operating temperature
- NPort 5232:** 2-port RS-422/485 serial device server
- NPort 5232-T:** NPort 5232, -40 to 75°C operating temperature
- NPort 5232I:** 2-port RS-422/485 serial device server with 2 KV isolation
- NPort 5232I-T:** 2-port RS-422/485 serial device server with 2 KV isolation, -40 to 75°C operating temperature

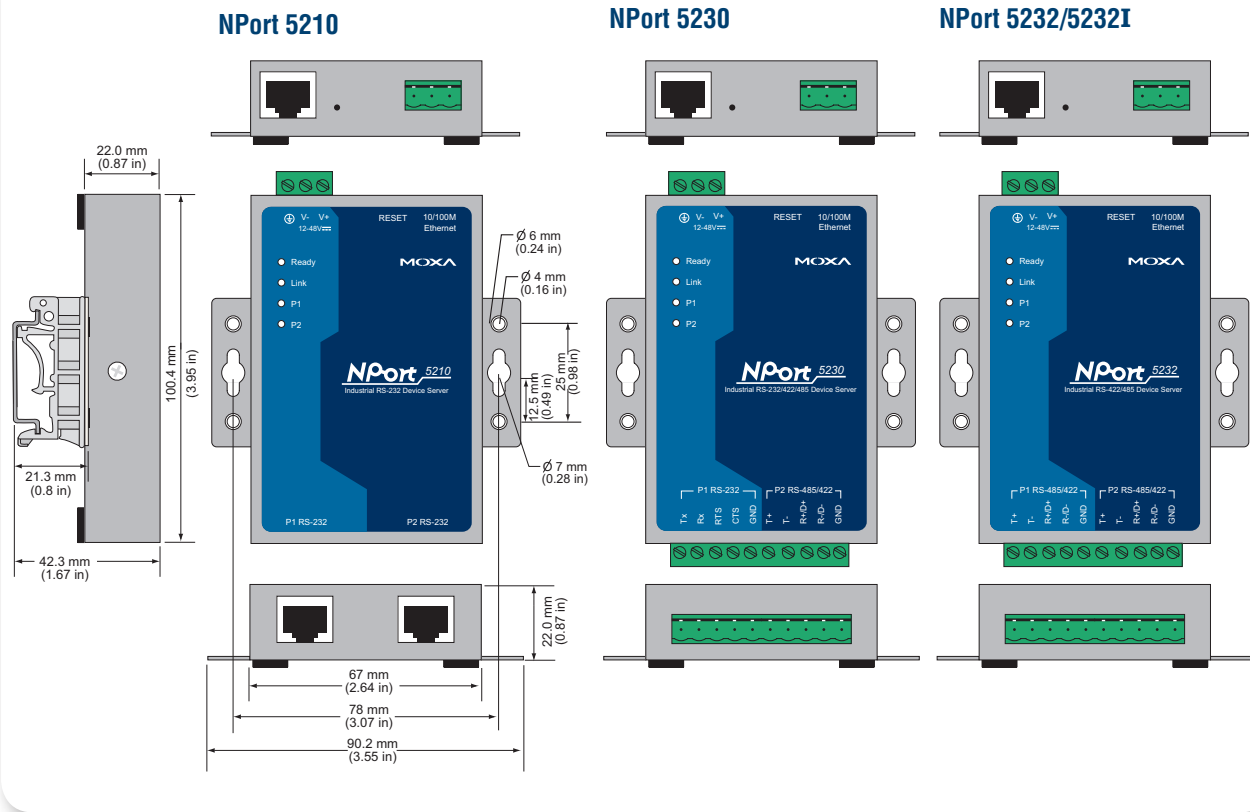
Package Checklist

- 1 NPort 5200 Device Server
- Quick Installation Guide
- NPort Document and Software CD-ROM
- Power Jack to Terminal Block
- Power Cable

Optional Accessories

- DK-35A:** DIN-Rail Mounting Kit (35 mm)
- DIN-Rail Power Supply:** See page 12-7
- Terminal Block:** See page 12-5

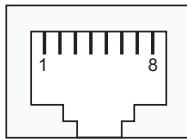
Dimensions (unit = mm)



Pin Assignment

NPort 5210/5210-T

RJ45 RS-232 Port

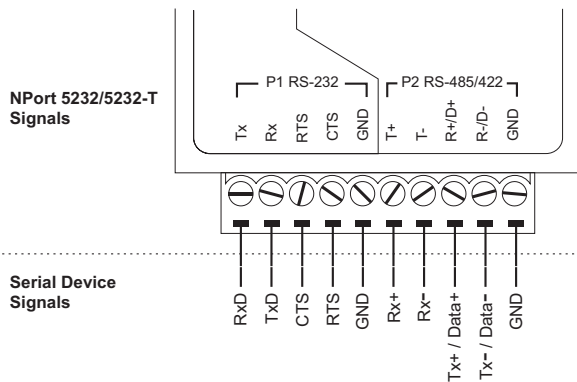


PIN	RS-232
1	DSR (in)
2	RTS (out)
3	GND
4	TxD (out)

PIN	RS-232
5	RxD (in)
6	DCD (in)
7	CTS (in)
8	DTR (out)

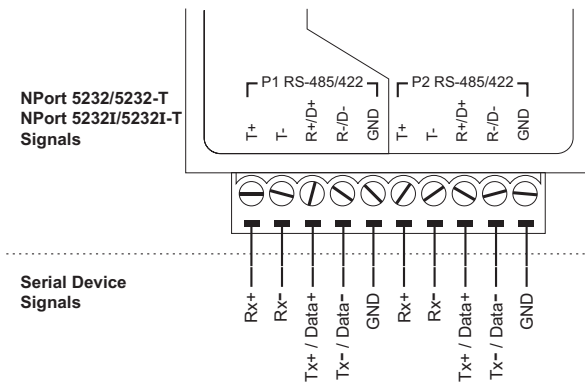
NPort 5230/5230-T

RS-232/422/485 Terminal Block Wiring



NPort 5232/5232-T/5232I/5232I-T

RS-422/485 Terminal Block Wiring



Specifications

LAN

Ethernet: 10/100 Mbps, RJ45, Auto MDI/MDIX

Protection: Built-in 1.5 KV magnetic isolation

Serial

NPort 5210/5210-T

No. of Ports: 2 (RS-232)

Port Type: RJ45 (8-pin)

Signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Serial Line Protection: 15 KV ESD for all signals

NPort 5230/5230-T

No. of Ports: 1 RS-232 port and 1 RS-422/485 port

Port Type: Terminal Block (5 pins per port)

Signals: RS-232: TxD, RxD, RTS, CTS, GND

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

RS-485 (2-wire): Data+, Data-, GND

RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND

Serial Line Protection: 15 KV ESD for all signals

RS-485 Data Direction:

Patented Automatic Data Direction Control (ADDC™)

NPort 5232/5232I/5232-T/5253I-T

No. of Ports: 2 (RS-422/485)

Port Type: Terminal block (5 pins per port)

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

RS-485 (2-wire): Data+, Data-, GND

RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND

Serial Line Protection: 15 KV ESD for all signals,
2 KV isolation protection for NPort 5232I

RS-485 Data Direction:

Patented Automatic Data Direction Control (ADDC™)

Serial Line Protection: 15 KV ESD for all signals

Power Line Protection:

1 KV Burst (EFT), EN61000-4-4

0.5 KV Surge, EN61000-4-5

Built-in Buzzer

Built-in Real Time Clock

Built-in Watchdog Timer

Serial Communication Parameters

Parity: None, Even, Odd, Space, Mark

Data Bits: 5, 6, 7, 8

Stop Bit(s): 1, 1.5, 2

Flow Control: RTS/CTS (for RS-232 only), XON/XOFF

Speed: 110 bps to 230.4 Kbps

Software Features

Protocols: ICMP, IP, TCP, UDP, DHCP, BootP, Telnet, DNS, SNMP, HTTP, SMTP, SNTp

Utilities: NPort Administrator for Windows 95/98/ME/NT/2000/XP/2003

OS Driver Support: Windows 95/98/ME/NT/2000/XP/2003/XP x64/2003 x64 COM driver, Linux real TTY driver, SCO Unix, SCO OpenServer 5, UnixWare 7, UnixWare 2.1.x, SVR4.2, QNX

Configuration: Web console, serial console (for NPort 5210, 5230 only), Telnet console, or Windows utility, (NPort 5210/5230)

Power Requirements

Power Input: 12 to 48 VDC

Power Consumption: NPort 5210: 305 mA @ 12V (max.)

NPort 5230: 347.1 mA @ 12V (max.)

NPort 5232: 259.6 mA @ 12V (max.)

NPort 5232I: 509.4 mA @ 12V (max.)

Mechanical Specifications

Material: Aluminum (1 mm)

Gross Weight: NPort 5210: 320 g

NPort 5230: 340 g

NPort 5232: 340 g

NPort 5232I: 380 g

Environment

Operating Temperature:

0 to 55°C (32 to 131°F), 5 to 95% RH

-40 to 75°C (-40 to 167°F), for wide temperature models

Storage Temperature:

-20 to 85°C (-4 to 185°F), 5 to 95% RH

Regulatory Approvals

EMC:

CE: EN55022 / EN55024 Class A

FCC: FCC Part 15 Subpart B Class A

Safety:

UL: UL60950-1

TÜV: EN60950-1

Medical: EN 60601-1-2 Class B, EN55011 (NPort 5210)

Marine: DNV

Warranty: 5 years

MTBF:

NPort 5210: 134850 hours

NPort 5230: 106955 hours

NPort 5232: 102344 hours

NPort 5232I: 87083 hours