

NPort® 5200 Series

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



- > Compact design for easy installation
- > Socket modes: TCP server/TCP client/UDP
- > Easy-to-use Windows utility for configuring multiple device servers
- > Supports 10/100M Ethernet
- > Patented ADDC® (Automatic Data Direction Control) for 2-wire and 4-wire RS-485
- > SNMP MIB-II for network management



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: 2
Serial Standards:
 NPort 5210: RS-232
 NPort 5230: 1 RS-232 port, 1 RS-422/485 port
 NPort 5232/5232I: RS-422/485

Connector:

NPort 5210: RJ45 (8 pins)
 NPort 5230/5232/5232I: Terminal Block (5 contacts per port)

Serial Line Protection: 2 kV isolation protection (NPort 5232I/5232I-T)

RS-485 Data Direction Control: ADDC® (Automatic Data Direction Control)

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 (RS-232 only), DTR/DSR (NPort 5210 only), XON/XOFF
Baudrate: Supports standard baudrates (unit=bps): 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k

Serial Signals

RS-232:
 NPort 5210: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
 NPort 5230: 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

Software

Network Protocols: ICMP, IPv4, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1, HTTP, SMTP, SNTP, ARP
Configuration Options: Web Console, Serial Console (NPort 5210/5230 only), Telnet Console, Windows Utility

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 (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

Linux Real TTY Drivers: Linux 2.4.x, 2.6.x, 3.x, 4.x

Android API: Android 3.1.x and later

Physical Characteristics

Housing: Metal

Weight:

NPort 5210: 340 g (0.75 lb)
 NPort 5230/5232: 360 g (0.79 lb)
 NPort 5232I: 380 g (0.84 lb)

Dimensions:

NPort 5210/5230/5232:
 Without ears: 67 x 100.4 x 22 mm (2.64 x 3.95 x 0.87 in)
 With ears: 90 x 100.4 x 22 mm (3.54 x 3.95 x 0.87 in)
 NPort 5232I:
 Without ears: 67 x 100.4 x 35 mm (2.64 x 3.95 x 1.37 in)
 With ears: 90 x 100.4 x 35 mm (3.54 x 3.95 x 1.37 in)

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: -40 to 75°C (-40 to 167°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements

Input Voltage: 12 to 48 VDC

Input Current:

NPort 5210: 325 mA @ 12 VDC
 NPort 5230: 325 mA @ 12 VDC
 NPort 5232: 280 mA @ 12 VDC
 NPort 5232I: 365 mA @ 12 VDC

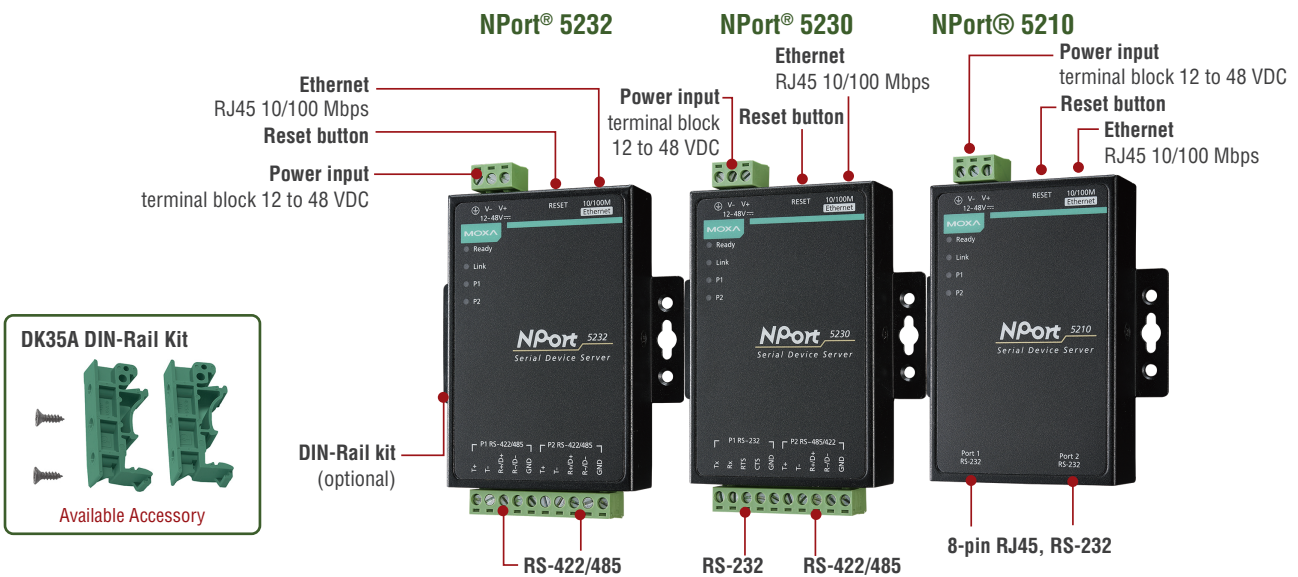
Standards and Certifications

Safety: UL 60950-1
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 DIPs
Marine: DNV (excluding the NPort 5210)
Medical: (NPort 5210 only) EN 60601-1-2 Class B, EN55011

Reliability

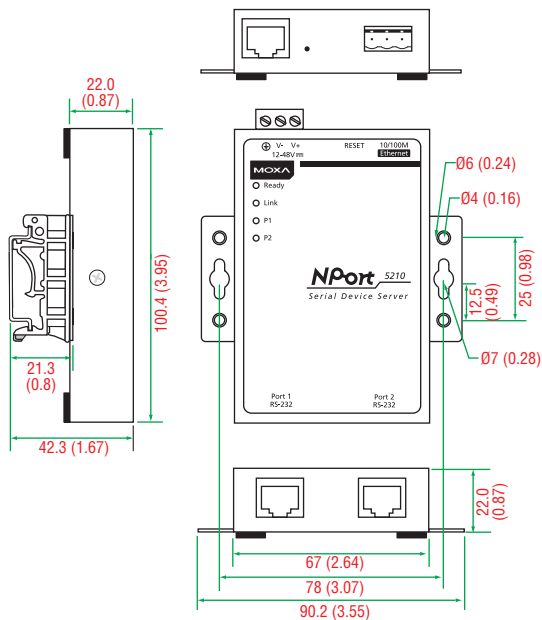
Alert Tools: Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger: Built-in WDT (watchdog timer)
MTBF (mean time between failures)
Time:
 NPort 5210: 381,342 hrs
 NPort 5230: 377,937 hrs
 NPort 5232/5232I: 309,383 hrs
Standard: Telcordia (Bellcore) Standard TR/SR
Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Appearance

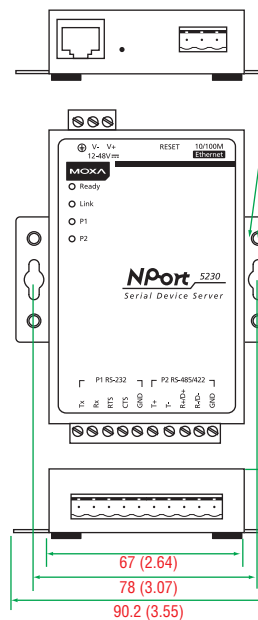


Dimensions

NPort® 5210



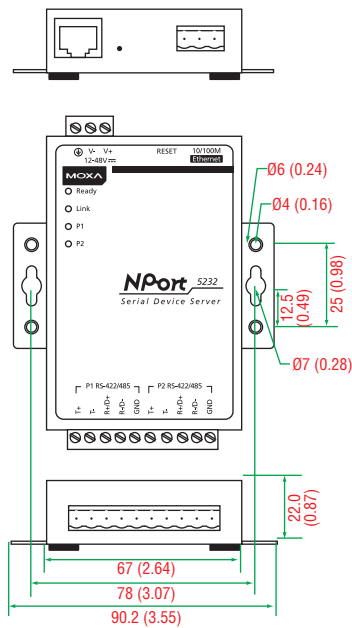
NPort® 5230



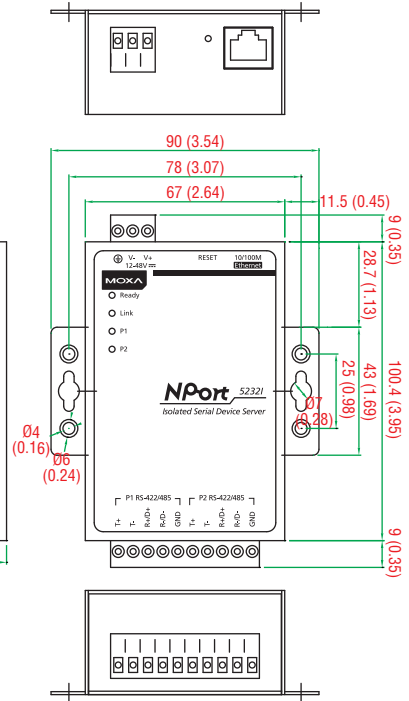
Unit: mm (inch)

Dimensions

NPort® 5232



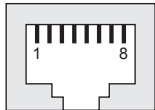
NPort® 5232I



Unit: mm (inch)

Pin Assignment

8-pin RJ45 connector



NPort® 5210/5210-T (RS-232)

| PIN | RS-232 |
|-----|-----------|
| 1 | DSR (in) |
| 2 | RTS (out) |
| 3 | GND |
| 4 | TxD (out) |
| 5 | RxD (in) |
| 6 | DCD (in) |
| 7 | CTS (in) |
| 8 | DTR (out) |

Ordering Information

Available Models

- NPort 5210:** 2-port RS-232 device server, 0 to 55°C operating temperature
- NPort 5230:** 2-port device server with 1 RS-232 port and 1 RS-422/485 port, 0 to 55°C operating temperature
- NPort 5232:** 2-port RS-422/485 device server, 0 to 55°C operating temperature
- NPort 5232I:** 2-port RS-422/485 device server with 2 kV optical isolation, 0 to 55°C operating temperature
- NPort 5210-T:** 2-port RS-232 device server, -40 to 75°C operating temperature
- NPort 5230-T:** 2-port device server with 1 RS-232 port and 1 RS-422/485 port, -40 to 75°C operating temperature
- NPort 5232-T:** 2-port RS-422/485 device server, -40 to 75°C operating temperature
- NPort 5232I-T:** 2-port RS-422/485 device server with 2 kV optical isolation, -40 to 75°C operating temperature


Optional Accessories (can be purchased separately)

- DK35A:** DIN-rail mounting clips, 35 mm, 2 DIN-rail plates with 4 screws
 - CBL-PJTB-10:** Non-locking barrel plug to bare wires cable
 - Mini DB9F-to-TB:** DB9 female to terminal block adapter for RS-422/485 applications
- Note: Additional power adapters can be purchased separately. Please refer to the Power Accessory Selection Guide for details.

Package Checklist

- 1 NPort 5200 device server
- 1 power wiring adapter: CBL-PJTB-10
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

Power Accessory Selection Guide

| Barrel Plug Type | | Locking Barrel Plug | | | | |
|-------------------|--------------|--|-------------------|-------------------|-------------------|-------------------|
| O/P | | 12 VDC 0.5 A, 100 to 240 VAC (Switch-Mode) | | | | |
| Plug Type | | US/JP | EU | AU | UK | CN |
| Appearance | |  | | | | |
| Model Name | | PWR-12050-WPUSJP-S1 | PWR-12050-WPEU-S1 | PWR-12050-WPAU-S1 | PWR-12050-WPUK-S1 | PWR-12050-WPCN-S1 |
| 1 Port | NPort 5110 | - | - | - | - | - |
| | NPort 5130 | - | - | - | - | - |
| | NPort 5150 | - | - | - | - | - |
| | NPort 5110A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5130A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5150A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DE-211 | - | - | - | - | - |
| | DE-311 | - | - | - | - | - |
| | NPort P5150A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort W2150A | ✓ | ✓ | ✓ | ✓ | ✓ |
| NPort Z2150/Z3150 | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 2 Ports | NPort 5210 | - | - | - | - | - |
| | NPort 5230 | - | - | - | - | - |
| | NPort 5232 | - | - | - | - | - |
| | NPort 5232I | - | - | - | - | - |
| | NPort 5210A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5230A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5250A | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort W2250A | ✓ | ✓ | ✓ | ✓ | ✓ |

| Barrel Plug Type | | Non-Locking Barrel Plug | | | | |
|-------------------|--------------|--|-------------------|-------------------|-------------------|-------------------|
| O/P | | 12 VDC 0.5 A, 100 to 240 VAC (Switch-Mode) | | | | |
| Plug Type | | US/JP | EU | AU | UK | CN |
| Appearance | |  | | | | |
| Model Name | | PWR-12050-WPUSJP-S2 | PWR-12050-WPEU-S2 | PWR-12050-WPAU-S2 | PWR-12050-WPUK-S2 | PWR-12050-WPCN-S2 |
| 1 Port | NPort 5110 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5130 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5150 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5110A | - | - | - | - | - |
| | NPort 5130A | - | - | - | - | - |
| | NPort 5150A | - | - | - | - | - |
| | DE-211 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | DE-311 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort P5150A | - | - | - | - | - |
| | NPort W2150A | - | - | - | - | - |
| NPort Z2150/Z3150 | - | - | - | - | - | |
| 2 Ports | NPort 5210 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5230 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5232 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5232I | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5210A | - | - | - | - | - |
| | NPort 5230A | - | - | - | - | - |
| | NPort 5250A | - | - | - | - | - |
| | NPort W2250A | - | - | - | - | - |

Power Accessory Selection Guide

| Barrel Plug Type | | Non-Locking Barrel Plug | | | | |
|------------------|-------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| O/P | | 12 VDC 1.25/1.5 A, 100 to 240 VAC | | | | |
| Plug Type | | US/JP | EU | AU | UK | CN |
| Appearance | | | | | | |
| Model Name | | PWR-12125-WPUSJP-S1 | PWR-12125-WPEU-S1 | PWR-12125-WPAU-S1 | PWR-12125-WPUK-S1 | PWR-12125-WPCN-S1 |
| 4 Ports | NPort 5410 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5430 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5430I | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5450 | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5450I | ✓ | ✓ | ✓ | ✓ | ✓ |
| 8 Ports | NPort 5610-8 | - | - | - | - | - |
| | NPort 5630-8 | - | - | - | - | - |
| | NPort 5650-8 | - | - | - | - | - |
| | NPort 5650-8-M-SC | - | - | - | - | - |
| | NPort 5650-8-S-SC | - | - | - | - | - |
| | NPort 5610-8-DT | - | - | - | - | - |
| | NPort 5610-8-DT-J | - | - | - | - | - |
| | NPort 5650-8-DT | - | - | - | - | - |
| | NPort 5650-8-DT-J | - | - | - | - | - |
| | NPort 5650I-8-DT | - | - | - | - | - |
| NPort 5610-8-DTL | - | - | - | - | - | |
| 16 Ports | NPort 5610-16 | - | - | - | - | - |
| | NPort 5630-16 | - | - | - | - | - |
| | NPort 5650-16 | - | - | - | - | - |

| Barrel Plug Type | | Locking Barrel Plug | | | | | | |
|------------------|-------------------|---|-----------------------------|------------------|------------------|------------------|------------------|------------------|
| O/P | | 12 VDC 2 A, 100 to 240 VAC (desktop type) | 10A/250V Power Cord, 183 cm | | | | | |
| Plug Type | | Requires 1 power cord (US/JP/EU/AU/UK/CN) | US | JP | EU | AU | UK | CN |
| Appearance | | | | | | | | |
| Model Name | | PWR-12200-DT-S1 | PWC-C13US-3B-183 | PWC-C13JP-3B-183 | PWC-C13EU-3B-183 | PWC-C13AU-3B-183 | PWC-C13UK-3B-183 | PWC-C13CN-3B-183 |
| 4 Ports | NPort 5410 | - | - | - | - | - | - | - |
| | NPort 5430 | - | - | - | - | - | - | - |
| | NPort 5430I | - | - | - | - | - | - | - |
| | NPort 5450 | - | - | - | - | - | - | - |
| | NPort 5450I | - | - | - | - | - | - | - |
| 8 Ports | NPort 5610-8 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5630-8 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-8 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-8-M-SC | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-8-S-SC | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5610-8-DT | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5610-8-DT-J | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-8-DT | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-8-DT-J | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650I-8-DT | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NPort 5610-8-DTL | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| 16 Ports | NPort 5610-16 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5630-16 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| | NPort 5650-16 | - | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |