

NPort® 5400 Series

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



- > Easy IP address configuration with LCD panel
- > 10/100M auto-sensing Ethernet
- > 4 serial ports, with support for RS-232, RS-422, and RS-485
- > Built-in 15 KV ESD surge protection for all serial signals
- > Versatile socket operation modes, including TCP Server, TCP Client, and UDP
- > Choice of configuration methods: Web console, Telnet console, and Windows utility
- > SNMP MIB-II for network management
- > 2 KV isolation protection for NPort® 5430I

The certification logos shown here apply to some or all of the products in this section. Please see the **Specifications** section or Moxa's website for details.



8

Serial Device Servers > NPort® 5400 Series

Network Readiness for up to Four Serial Devices

NPort® 5400 device servers can conveniently and transparently connect up to four serial devices to an Ethernet, allowing you to network your existing serial devices with only basic configuration. Data transmission between the serial and Ethernet interfaces is

bi-directional. By using NPort® device servers, you not only protect your current hardware investment, but also allow for future network expansion. You can both centralize the management of your serial devices, and distribute management hosts over the network.

Independent Operation Mode for each Serial Port

NPort® 5400 device servers can be used to connect different devices for remote data polling, event handling, or data multicasting over a TCP/IP network. Each serial port on the NPort® 5400 operates

independently to provide maximum versatility. For example, port 1 can operate in Driver mode, port 2 in TCP Server mode, and ports 3 and 4 in TCP Client mode.

User-friendly LCD Panel for Easy Installation

An LCD panel is built into the NPort® 5400's top panel, with four buttons for inputting data, configuration, and selecting the operation mode. The LCD panel displays the server name, serial number, and IP address, and can be used to enter or modify parameters such as IP address, netmask, and gateway.



Redundant DC Power Inputs

NPort® 5400 device servers support redundant power sources and provide both a DC terminal block input and a DC power jack input. The two power inputs not only provide power redundancy, but also allow greater flexibility for use with different applications.

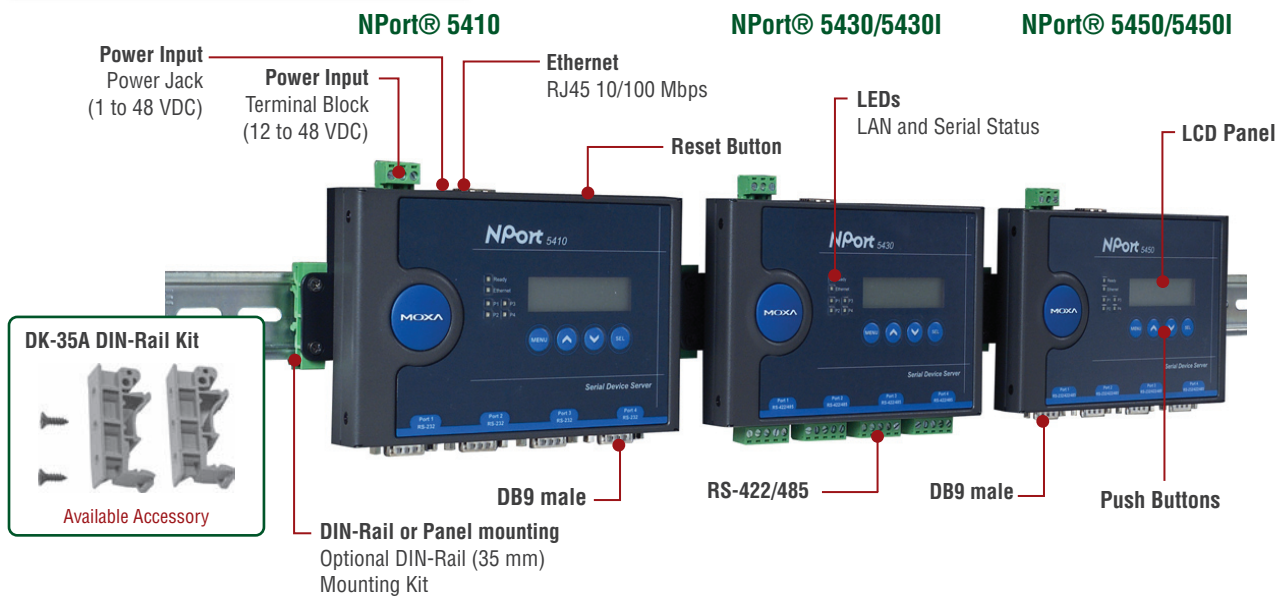


Adjustable Termination and pull High/Low Resistors

Termination resistors may be needed in some critical environments to prevent the reflection of serial signals. When using termination resistors, it is important to set the pull high/low resistors correctly to prevent the electrical signal from being corrupted. Since no set of resistor values is universally compatible with all environments, the NPort® 5400 has four sets of DIP switches on the bottom panel to set the termination and pull high/low resistor values.



Appearance



Specifications

Ethernet Interface

- Number of Ports:** 1
- Speed:** 10/100 Mbps
- Connector:** 8-pin RJ45
- Magnetic Isolation Protection:** 1.5 KV built-in

Serial Interface

- Number of Ports:** 4
- Serial Standards:**
NPort® 5410: RS-232
NPort® 5430: RS-422/485
NPort® 5450: RS-232/422/485

Connectors:

- NPort® 5410/5450: DB9 male
- NPort® 5430: Terminal block

Serial Line Protection:

- 15 KV ESD protection for all signals
- 2 KV isolation protection (NPort® 5430I/5450I)

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:** DSR/DTR (RS-232 only), RTS/CTS, XON/XOFF
- Baudrate:** 50 bps to 921.6 Kbps

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

Software

Network Protocols: ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, Sntp, Rtelnet, ARP

Configuration Options: Web Console, Telnet Console, Windows Utility

Driver Support: Windows Real COM driver (for Windows 95, 98, ME, NT, 2000, XP, 2003, Vista, XP x64, 2003 x64, Vista x64), Linux Real TTY driver, Fixed TTY driver (for SCO Unix, SCO OpenServer, UnixWare 7, UnixWare 2.1, SVR 4.2, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i)

Mini Screen with Push Buttons

- LCD Panel:** Liquid Crystal Display on the case
- Push Buttons:** Four push buttons for convenient on-site configuration

Physical Characteristics

- Housing:** SECC sheet metal (1 mm), providing IP30 protection
- Weight:** 740 g
- Dimensions:**
Without mounting kit: 158 x 103 x 33 mm (6.22 x 4.06 x 1.30 in)
With mounting kit: 176 x 103 x 33 mm (6.93 x 4.06 x 1.30 in)

Environmental Limits

- Operating Temperature:** 0 to 55°C (32 to 131°F)
- Operating Humidity:** 5 to 95% RH
- Storage Temperature:** -20 to 70°C (-4 to 158°F)

Power Requirements

- Input Voltage:** 12 to 48 VDC
- Power Consumption:**
NPort® 5410/5430: 350 mA @ 12 V max.
NPort® 5430I: 585 mA @ 12 V max.
NPort® 5450: 350 mA @ 12 V max.
NPort® 5450I: 554 mA @ 12 V max.

Power Line Protection: 4 KV burst (EN61000-4-4: EFT/B), 2 KV surge (EN61000-4-5)

Regulatory Approvals

- EMC:** CE (EN55022 and EN55024 Class A), FCC Part 15 Subpart B Class A
- Safety:** UL (UL60950-1), CUL, TÜV (EN60950-1)
- Medical:** EN60601-1-2 Class B, EN55011
- Marine:** DNV

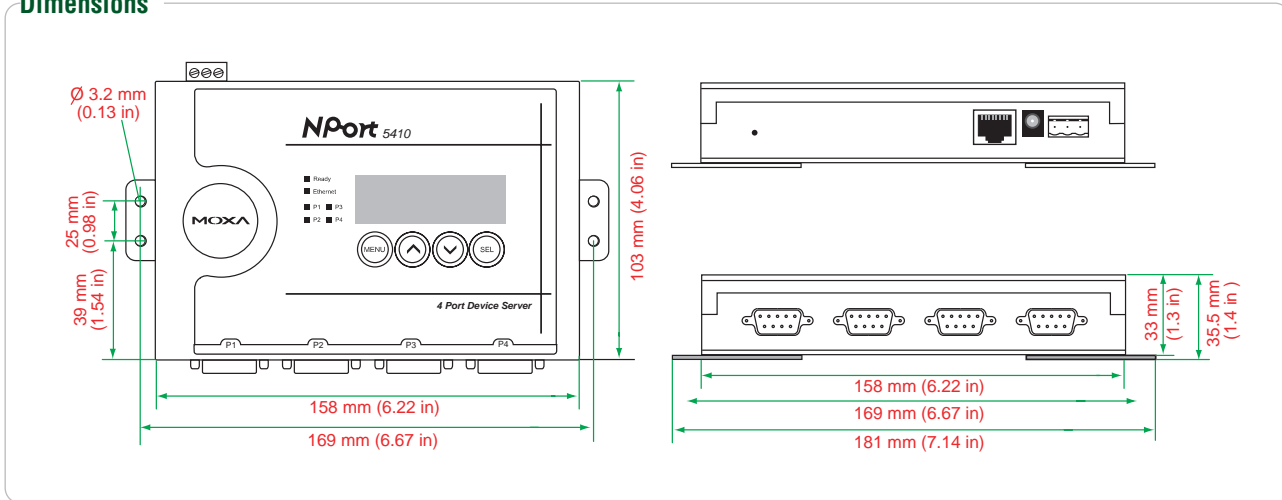
Reliability

Alert Tools: Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger: Built-in WDT (watchdog timer)
MTBF (mean time between failures):
 NPort® 5410: 205153 hrs
 NPort® 5430: 201699 hrs
 NPort® 5430I: 114540 hrs

Warranty

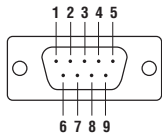
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions



Pin Assignment

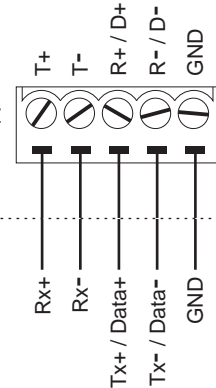
NPort® 5410
 (RS-232, DB9 male connector)



PIN	RS-232
1	DCD
2	RxD
3	RxD
4	DTR
5	GND
6	DSR
7	TRN
8	CTS
9	-

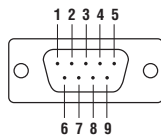
NPort® 5430/5430I
 (RS-422/485, terminal block connector)

NPort 5430/5430I
Terminal Block



Serial Device
Signals

NPort® 5450/5450I (RS-232/422/485, DB9 male connector)
(RS-232/422/485, DB9 male connector)



PIN	RS-232	RS-422/RS-485-4w	RS-485-2w
1	DCD	TxD-(A)	---
2	RxD	TxD+(B)	---
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	---	---
7	RTS	---	---
8	CTS	---	---
9	---	---	---

Ordering Information

Available Models

NPort® 5410: 4-port RS-232 device server
NPort® 5430: 4-port RS-422/485 device server
NPort® 5430I: 4-port RS-422/485 device server with 2 KV optical isolation
NPort® 5450: 4-port RS-232/422/485 device server
NPort® 5450I: 4-port RS-232/422/485 device server with 2 KV optical isolation

Optional Accessories (can be purchased separately)

DK-35A: Mounting Kit for 35-mm DIN-Rail
DIN-Rail Power Supply: See page A-8 for details
Terminal Block: See page A-7 for details
Power Adaptor: See page A-9 for details

Package Checklist

- NPort® 5400 series device server
- Power Jack to 3-pin Terminal Block Adaptor
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card



Serial Device Servers > NPort® 5400 Series