NPort 5200A Series

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

Features and Benefits

- Fast 3-step web-based configuration
- Surge protection for serial, Ethernet, and power
- COM port grouping and UDP multicast applications
- Screw-type power connectors for secure installation
- Dual DC power inputs with power jack and terminal block
- Versatile TCP and UDP operation modes

Certifications

Introduction

The NPort® 5200A device servers are designed to make serial devices network-ready in an instant and give your PC software direct access to serial devices from anywhere on the network. The NPort® 5200A device servers are ultra-lean, ruggedized, and user-friendly, making simple and reliable serial-to-Ethernet solutions possible.

A Greener Serial-to-Ethernet Solution

The MiiNe is a small but powerful Arm-based serial-to-Ethernet SoC with RAM and Flash embedded. With the MiiNe inside, the NPort® 5200A Series saves at least 50% on power consumption compared to existing solutions on the market, helping engineers meet the tough environmental compliance challenges found in today's industrial environments.

Surge Protection for Serial, Ethernet, and Power

Surge, which is typically caused by high voltages that result from switching and lightning transients, is a common threat to all electrical devices. Moxa's leading-edge surge immunity solution, which is applied to the NPort® 5200A's serial, power, and Ethernet lines, is tested and proven compliant with IEC 61000-4-5. This state-of-the-art surge protection provides a robust serial-to-Ethernet solution that can protect electrical devices from voltage spikes and withstand electrically noisy environmental conditions.
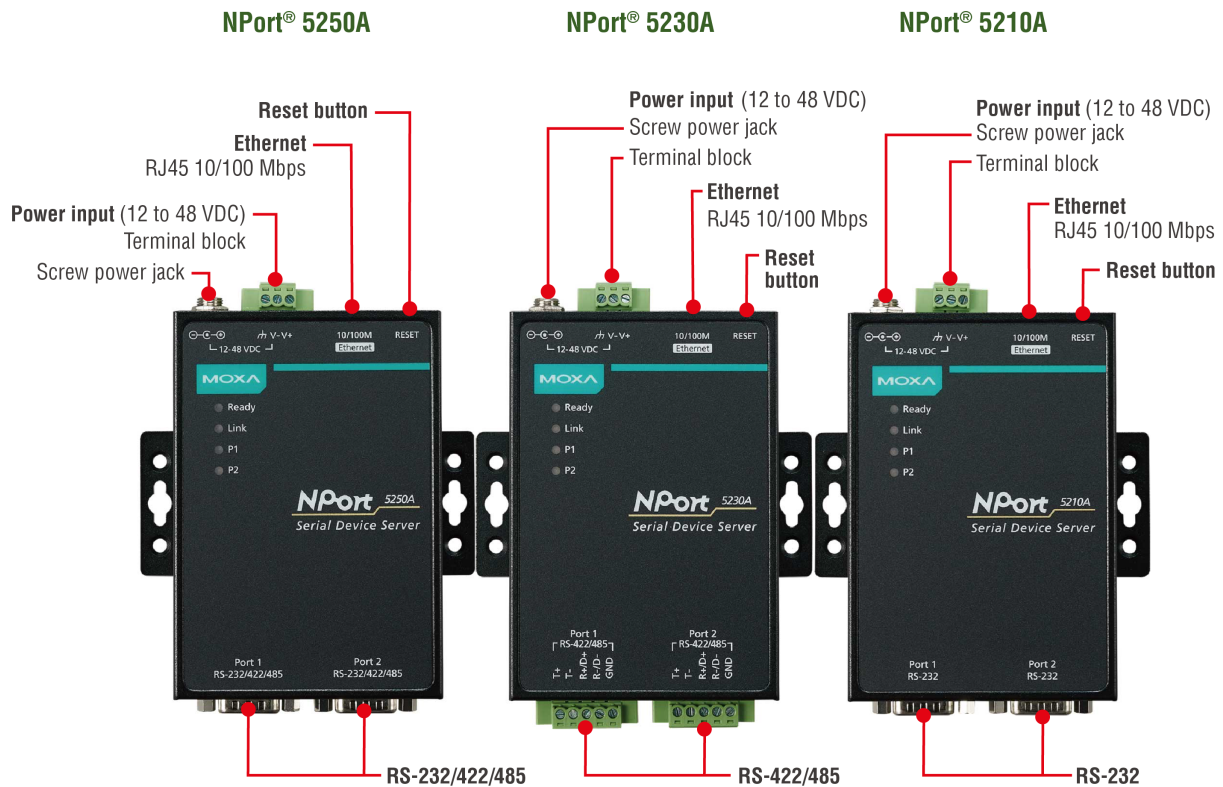
3-Step Web-based Configuration

The NPort® 5200A's 3-step web-based configuration tool is straightforward and user-friendly. The NPort® 5200A's web console guides users through three simple configuration steps that are necessary to activate the serial-to-Ethernet application. With this fast 3-step web-based configuration, a user only needs to spend an average of 30 seconds to complete the NPort® settings and enable the application, saving a great amount of time and effort.

COM Port Grouping

The NPort® 5200A's COM Grouping function allows you to create a COM Group and redirect data from it to several physical COM ports on NPort device servers. With COM Grouping, you will be able to control multiple physical serial ports simultaneously by operating only one COM port.

Appearance

NPort® 5250A

- Reset button
- Ethernet RJ45 10/100 Mbps
- Power input (12 to 48 VDC)
  - Terminal block
  - Screw power jack
- RS-232/422/485

NPort® 5230A

- Power input (12 to 48 VDC)
  - Screw power jack
  - Terminal block
- Ethernet RJ45 10/100 Mbps
- Reset button
- RS-422/485

NPort® 5210A

- Power input (12 to 48 VDC)
  - Screw power jack
  - Terminal block
- Ethernet RJ45 10/100 Mbps
- Reset button
- RS-232

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, Serial Console, Telnet Console, Web Console (HTTP/HTTPS)
Management	ARP, BOOTP, DHCP Client, DNS, HTTP, HTTPS, ICMP, IPv4, LLDP, SMTP, SNMPv1/v2c, Telnet, TCP/IP, UDP
Filter	IGMP v1/v2
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
Linux Real TTY Drivers	Kernel versions: 2.4.x, 2.6.x, 3.x, 4.x, and 5.x
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
Android API	Android 3.1.x and later
MIB	RFC1213, RFC1317

Serial Interface

Connector	NPort 5210A/5250A Series: DB9 male NPort 5230A Series: 5-pin terminal block
No. of Ports	2
Serial Standards	NPort 5210A Series: RS-232 NPort 5230A Series: RS-422, RS-485 NPort 5250A Series: RS-232, RS-422, RS-485

Operation Modes	Disabled, Ethernet Modem, Pair Connection, Real COM, Reverse Telnet, RFC2217, TCP Client, TCP Server, UDP
Baudrate	Supports standard baudrates (unit=bps): 50, 75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k, 460.8k, 921.6k
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	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Terminator for RS-485	120 ohms

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

Power Parameters

Input Current	119 mA @ 12 VDC
Input Voltage	12 to 48 VDC
No. of Power Inputs	2
Power Connector	1 removable 3-contact terminal block(s) Power input jack

Reliability

Automatic Reboot Trigger	Built-in WDT

Physical Characteristics

Housing	Metal
Dimensions (with ears)	100 x 111 x 26 mm (3.94 x 4.37 x 1.02 in)
Dimensions (without ears)	77 x 111 x 26 mm (3.03 x 4.37 x 1.02 in)
Weight	340 g (0.75 lb)
Installation	Desktop, DIN-rail mounting (with optional kit), Wall mounting

Environmental Limits

Operating Temperature	Standard Models: 0 to 60°C (32 to 140°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
EMS	IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8 PFMF IEC 61000-4-11 DIPs
EMI	CISPR 32, FCC Part 15B Class A
Safety	UL 60950-1

Declaration

Green Product	RoHS, CRoHS, WEEE

MTBF

Time	847,750 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

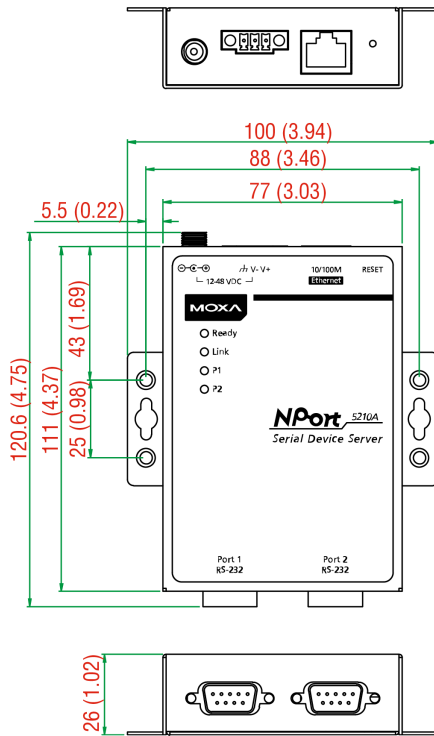|	
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x NPort 5200A Series device server
Power Supply	1 x power adapter, suitable for your region (standard temp. models only)
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

Dimensions

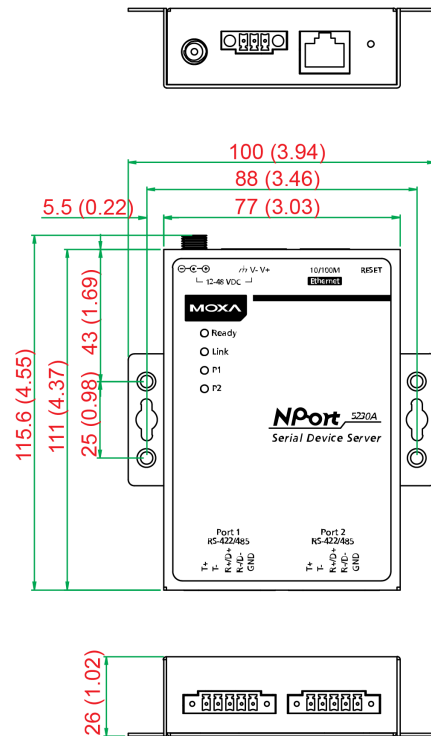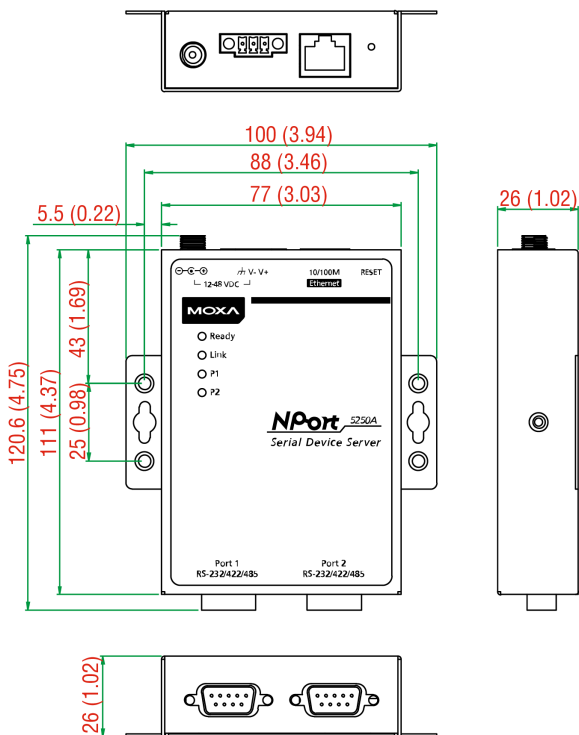## NPort 5210A

Unit: mm (inch)

NPort 5230A

Unit: mm (inch)

NPort 5250A

Unit: mm (inch)

Ordering Information

Model Name	Operating Temp.	Baudrate	Serial Standards	No. of Serial Ports	Input Current	Input Voltage
NPort 5210A	0 to 55°C	50 bps to 921.6 kbps	RS-232	2	119 mA @ 12 VDC	12-48 VDC
NPort 5210A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-232	2	119 mA @ 12 VDC	12-48 VDC
NPort 5230A	0 to 55°C	50 bps to 921.6 kbps	RS-422/485	2	119 mA @ 12 VDC	12-48 VDC
NPort 5230A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-422/485	2	119 mA @ 12 VDC	12-48 VDC
NPort 5250A	0 to 55°C	50 bps to 921.6 kbps	RS-232/422/485	2	119 mA @ 12 VDC	12-48 VDC
NPort 5250A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-232/422/485	2	119 mA @ 12 VDC	12-48 VDC

Accessories (sold separately)

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm

Connectors

ADP-RJ458P-DB9F	DB9 female to RJ45 connector
Mini DB9F-to-TB	DB9 female to terminal block connector

DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm

Power Adapters

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
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-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-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 5210A-T NPort 5230A-T NPort 5250A-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 5210A-T NPort 5230A-T NPort 5250A-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 5210A-T NPort 5230A-T NPort 5250A-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 5210A-T NPort 5230A-T NPort 5250A-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 5210A-T NPort 5230A-T NPort 5250A-T

Power Cords

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

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