

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
- > Built-in 15 KV ESD protection for all serial signals
- > SNMP MIB-II for network management

See also NPort 5200A, p.9-28



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:

15 KV ESD protection for all signals
 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: 110 bps to 230.4 Kbps

Serial Signals

RS-232:
 NPort 5210: Tx+, Rx+, RTS, CTS, DTR, DSR, DCD, GND
 NPort 5230: Tx+, Rx+, 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, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1, HTTP, SMTP, SNMP

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 x86/x64, 2012 x64, Embedded CE 5.0/6.0, XP Embedded

Fixed TTY Drivers: 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

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

Physical Characteristics

Housing: Metal

Weight:

NPort 5210: 340 g
 NPort 5230/5232: 360 g
 NPort 5232I: 380 g

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 85°C (-40 to 185°F)

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

Power Requirements

Input Voltage: 12 to 48 VDC

Power Consumption:

NPort 5210: 325 mA @ 12 V, 190 mA @ 24 V
 NPort 5230: 325 mA @ 12 V, 190 mA @ 24 V
 NPort 5232: 280 mA @ 12 V, 150 mA @ 24 V
 NPort 5232I: 509.4 mA @ 12 V, 200 mA @ 24 V

Standards and Certifications

Safety: UL 60950-1, EN 60950-1

EMC: CE, FCC

EMI: EN 55022 Class A, FCC Part 15 Subpart B Class A

EMS: EN 55024

Marine: DNV

Medical: (NPort 5210 only)
EN 60601-1-2 Class B, EN 55011

Reliability

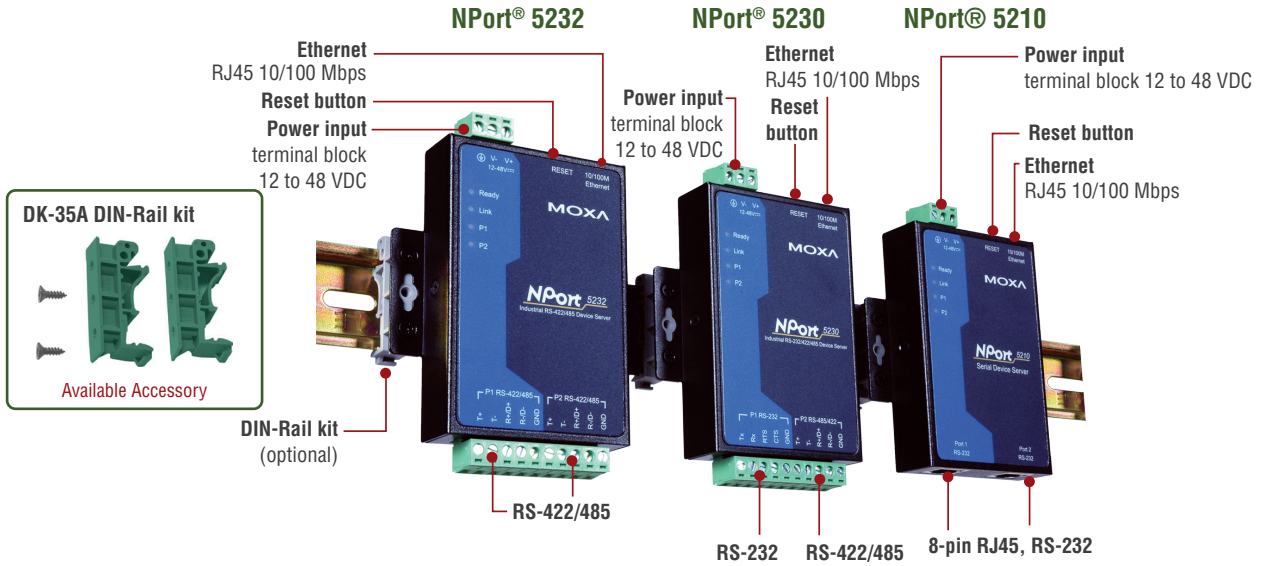
Alert Tools: Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger: Built-in WDT (watchdog timer)
MTBF (mean time between failures):

NPort 5210: 134,850 hrs
NPort 5230: 106,955 hrs
NPort 5232: 102,344 hrs
NPort 5232I: 87,083 hrs

Warranty

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

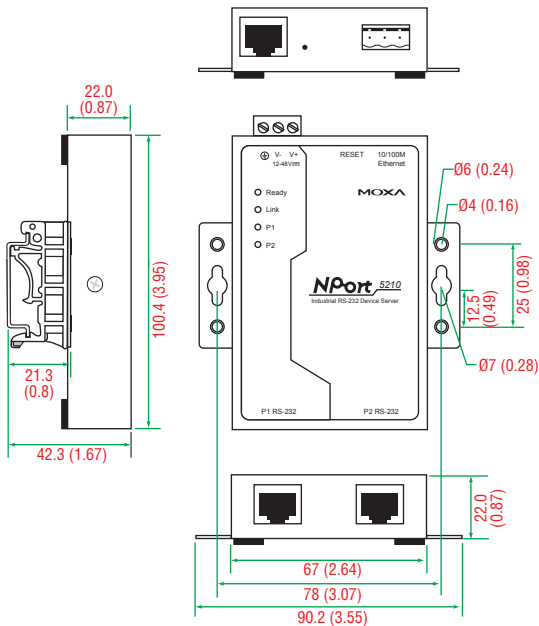
Appearance



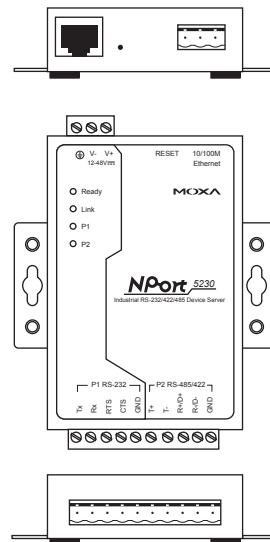
Dimensions

Unit: mm (inch)

NPort 5210

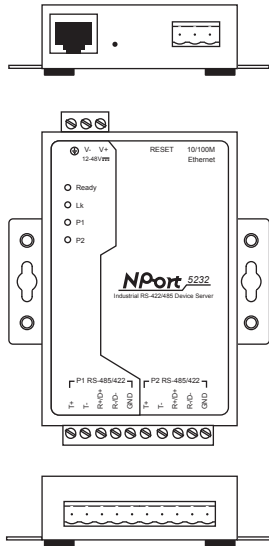


NPort 5230

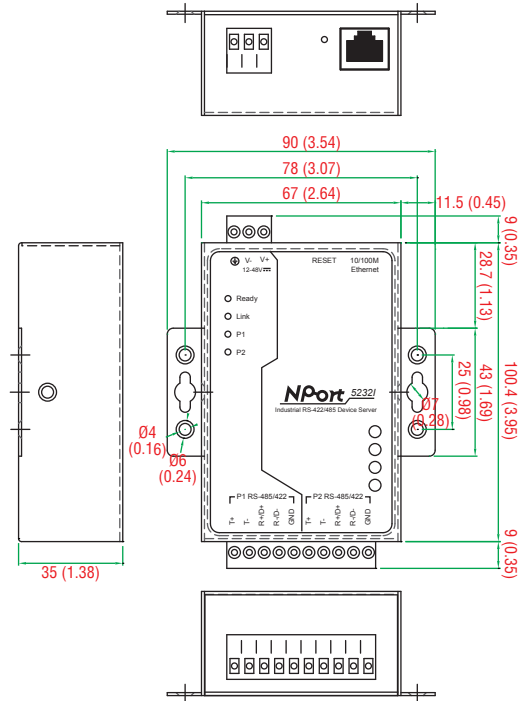


Dimensions

NPort® 5232



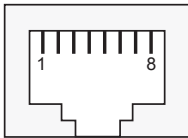
NPort® 5232I



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)

- DK-35A:** Mounting Kit for 35-mm DIN-Rail
- DIN-Rail Power Supply:** See page A-8 for details
- PWR-12150-USJP-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, US/JP Plug
- PWR-12150-EU-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, EU Plug
- PWR-12150-UK-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, UK Plug
- PWR-12150-CN-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, CN Plug
- PWR-12150-AU-SA-T:** 100 to 240 VAC input, 12 VDC/1.5A output, -40 to 75°C, screw type, AU Plug

Package Checklist

- NPort 5200 device server
- Power jack to a 3-pin terminal block adaptor
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

Wiring Kits

	TB-M9	TB-F9	TB-M25	TB-F25	ADP-RJ458P-DB9M	ADP-RJ458P-DB9F
Accessories Image					 <p>DB9M 1.....2 3.....4 5.....6 7.....8 RJ-45</p>	 <p>DB9F 1.....2 3.....4 5.....6 7.....8 RJ-45</p>
Type	DB9 male DIN-Rail wiring terminal	DB9 female DIN-Rail wiring terminal	DM25 male DIN-Rail wiring terminal	DB25 female DIN-Rail wiring terminal	RJ45-to-DB9 adaptor (male)	RJ45-to-DB9 adaptor (female)
Connector	DB9 male	DB9 female	DB25 male	DB25 female	-	-
Rating	300 V, 20 A (IEC250V 10A)				-	-
Operating Temperature	-40 to 105°C (-40 to 221°F)				-	-
Suitable Wiring	24-12 AWG (IEC 0.5-2.5 mm ²)				-	-