

# NPort® 5100 Series

## 1-port RS-232/422/485 serial device servers



- > Small size for easy installation
- > Real COM/TTY drivers for Windows and Linux
- > Standard TCP/IP interface and versatile operation modes
- > Easy-to-use Windows utility for configuring multiple device servers
- > Built-in 15 kV ESD protection for all serial signals
- > SNMP MIB-II for network management
- > Configure by Telnet, web browser, or Windows utility
- > Adjustable pull high/low resistor for RS-485 ports



### 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:** 1  
**Serial Standards:**  
 NPort 5110: RS-232  
 NPort 5130: RS-422/485  
 NPort 5150: RS-232/422/485  
**Connector:** DB9 male  
**Serial Line Protection:** 15 kV ESD protection for all signals  
**RS-485 Data Direction Control:** ADDC® (automatic data direction control)  
**Pull High/Low Resistor for RS-485:** 1 kΩ, 150 kΩ

#### 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 and DTR/DSR (RS-232 only), XON/XOFF  
**Baudrate:**  
 NPort 5110: 110 bps to 230.4 kbps  
 NPort 5130/5150: 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, IPv4, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP V1, HTTP, SMTP  
**Configuration Options:** Web Console, Serial Console (NPort 5110/5150 only), Telnet Console, Windows Utility  
**Windows Real COM Drivers:** Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1 (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

#### Physical Characteristics

**Housing:** Metal  
**Weight:** 340 g  
**Dimensions:**  
 Without ears: 52 x 80 x 22 mm (2.05 x 3.15 x 0.87 in)  
 With ears: 75.2 x 80 x 22 mm (2.96 x 3.15 x 0.87 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:** -20 to 75°C (-4 to 167°F)  
**Ambient Relative Humidity:** 5 to 95% (non-condensing)  
**Altitude:** Up to 2000 m  
*Note: Please contact Moxa if you require products guaranteed to function properly at higher altitudes.*

#### Power Requirements

**Input Voltage:** 12 to 48 VDC  
**Power Consumption:**  
 NPort 5110: 128.7 mA @ 12 V, 72 mA @ 24 V  
 NPort 5130/5150: 200 mA @ 12 V, 106 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

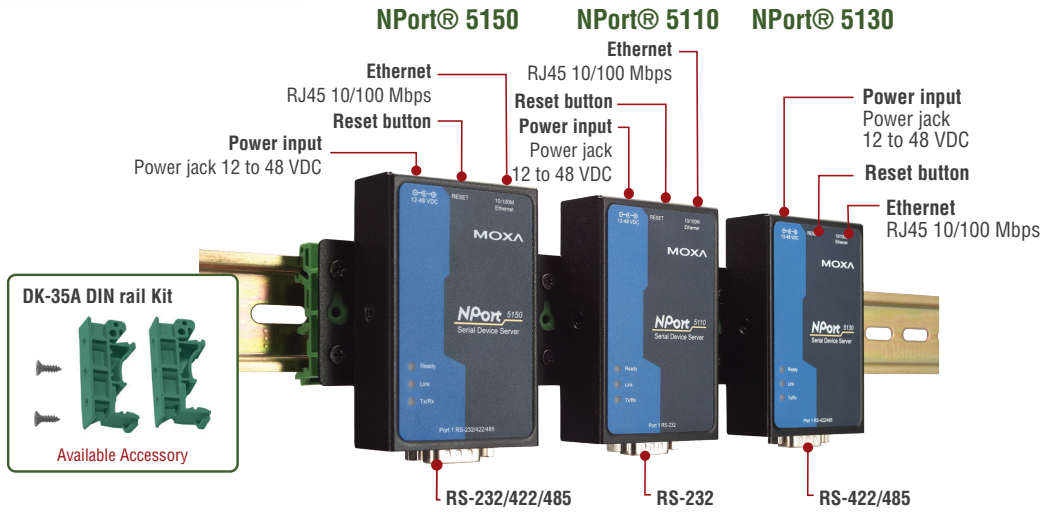
#### Reliability

**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)  
**MTBF (mean time between failures):**  
 NPort 5110: 279,122 hrs  
 NPort 5130: 246,505 hrs  
 NPort 5150: 246,034 hrs

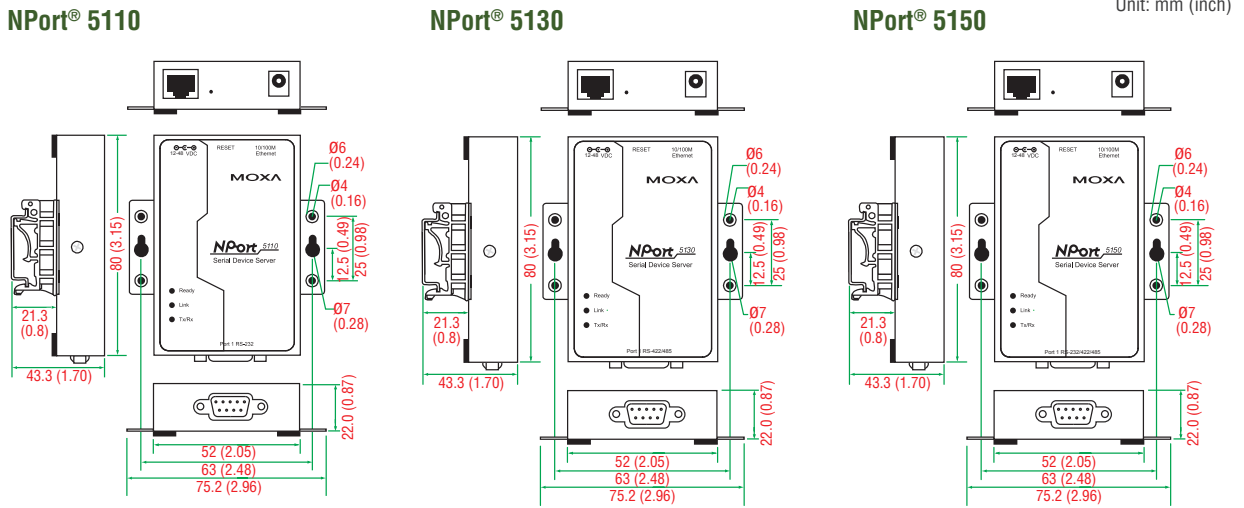
#### Warranty

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Appearance**

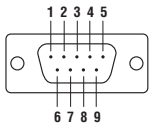


**Dimensions**



**Pin Assignment**

DB9 male connector



**NPort® 5110 (RS-232)**

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

**NPort® 5130 (RS-422/485)**

PIN	RS-422/485-4w	RS-485-2w
1	TxD-(A)	-
2	TxD+(B)	-
3	RxD+(B)	Data+(B)
4	RxD-(A)	Data-(A)
5	GND	GND
6	-	-
7	-	-
8	-	-

**NPort® 5150 (RS-232/422/485)**

PIN	RS-232	RS-422/485-4w	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	-	-

**Ordering Information**

**Available Models**

- NPort 5110:** 1-port RS-232 device server, 0 to 55°C operating temperature
- NPort 5130:** 1-port RS-422/485 device server, 0 to 55°C operating temperature
- NPort 5150:** 1-port RS-232/422/485 device server, 0 to 55°C operating temperature
- NPort 5110-T:** 1-port RS-232 device server, -40 to 75°C operating temperature

**Optional Accessories** (can be purchased separately)

**DK-35A:** Mounting kit for 35-mm DIN-Rail

**Package Checklist**

- NPort 5100 device server
- 100 to 240 VAC power adapter (excluding T models)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card