

# 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
- > 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  
**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, ARP, 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/2008/7/8/8.1/10 (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

#### Physical Characteristics

**Housing:** Metal  
**Weight:** 340 g (0.75 lb)  
**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:** -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 5110: 128.7 mA @ 12 VDC  
 NPort 5130/5150: 200 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: 1 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

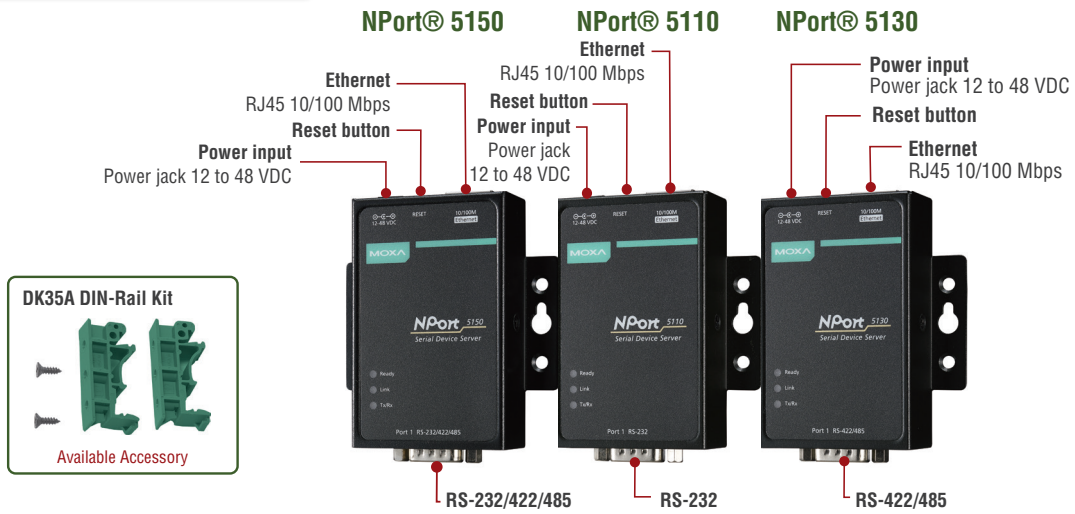
#### Reliability

**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)  
**MTBF (mean time between failures)**  
**Time:**  
 NPort 5110: 3,126,448 hrs  
 NPort 5130: 2,836,863 hrs  
 NPort 5150: 2,736,202 hrs  
**Standard:** Telcordia (Bellcore) Standard TR/SR

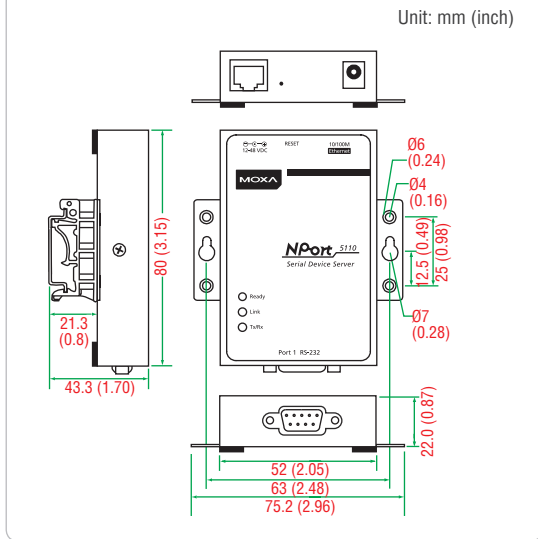
#### Warranty

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

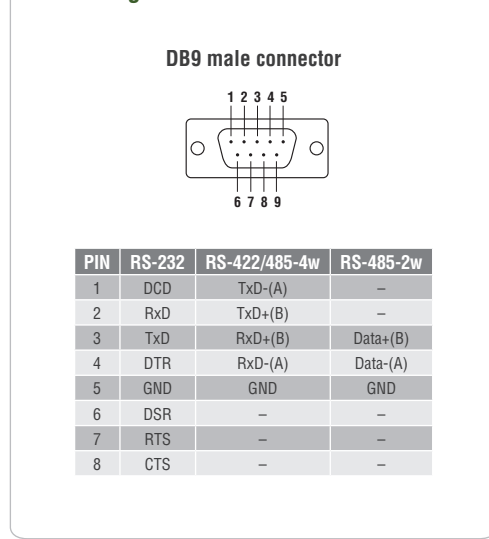
**Appearance**



**Dimensions**



**Pin Assignment**



**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)

- DK35A:** DIN-rail mounting clips, 35 mm, 2 DIN-rail plates with 4 screws
  - Mini DB9F-to-TB:** DB9 female to terminal block adapter for RS-422/485 applications
- Note: One power cord suitable for your region is included in the product package. Additional power cords can be purchased separately. Please refer to the Power Accessory Selection Guide for details.

**Package Checklist**

- 1 NPort 5100 device server
- 100 to 240 VAC standard operating temp. power adapter (excluding T models)\*
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

\*The package includes one power adapter suitable for your region.

# AC Power Adapters (standard temp.)

*Non-locking barrel plugs, 12 VDC, 0.5 A*

Model Name	PWR-12050-WPUSJP-S2	PWR-12050-WPEU-S2	PWR-12050-WPUK-S2	PWR-12050-WPAU-S2	PWR-12050-WPCN-S2
					
<b>Input Rating</b>					
I/P	100-240 VAC 50-60 Hz	100-240 VAC 50-60 Hz	100-240 VAC 50-60 Hz	100-240 VAC 50-60 Hz	100-240 VAC 50-60 Hz
<b>Input Plug</b>					
Plug Type	US/JP	EU	UK	AU	CN
<b>Output Rating</b>					
O/P	0.5 A @ 12 VDC	0.5 A @ 12 VDC	0.5 A @ 12 VDC	0.5 A @ 12 VDC	0.5 A @ 12 VDC
<b>Output Plug</b>					
Connector Type	L-Type 5.5/2.1/9.0	L-Type 5.5/2.1/9.0	L-Type 5.5/2.1/9.0	L-Type 5.5/2.1/9.0	L-Type 5.5/2.1/9.0
Outer Diameter	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm
Inner Diameter	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm
<b>Physical Characteristics</b>					
Dimensions (L x W x H)	64 x 40.5 x 47.5 mm	64 x 40.5 x 68.7 mm	64 x 40.5 x 56.2 mm	64 x 40.5 x 58.5 mm	64 x 40.5 x 46.5 mm
Packaged Dimensions (L x W x H)	83 x 50 x 70 mm	83 x 50 x 70 mm	83 x 50 x 70 mm	83 x 50 x 70 mm	83 x 50 x 70 mm
Weight	70 g	70 g	70 g	70 g	70 g
Cord Length	1830 ± 100 mm	1830 ± 100 mm	1830 ± 100 mm	1830 ± 100 mm	1830 ± 100 mm
<b>Environmental Limits</b>					
Operating Temperature	0 to 40°C (32 to 104°F)	0 to 40°C (32 to 104°F)	0 to 40°C (32 to 104°F)	0 to 40°C (32 to 104°F)	0 to 40°C (32 to 104°F)
Storage Temperature	-10 to 70°C (14 to 158°F)	-10 to 70°C (14 to 158°F)	-10 to 70°C (14 to 158°F)	-10 to 70°C (14 to 158°F)	-10 to 70°C (14 to 158°F)
<b>Regulatory Approvals</b>					
Safety	CE/FCC/UL/RCM/PSE/CCC	CE/FCC/UL/RCM/PSE/CCC	CE/FCC/UL/RCM/PSE/CCC	CE/FCC/UL/RCM/PSE/CCC	CE/FCC/UL/RCM/PSE/CCC
<b>Regulatory Products</b>					
Related Products	NPort 5110, NPort 5130, NPort 5150, NPort 5210, NPort 5230, NPort 5232, NPort 5232i, MGate MB3180, MGate MB3280, DE-211, DE-311, A52, A53, MiiNePort E1-ST				

# DC Power Cord

*Non-locking barrel plug to bare wires*

**CBL-PJTB-10**

Cable Length: 100 ± 20 mm



# AC Power Adapters (wide temp.)

**Locking barrel plugs, 12 VDC, 1.5 A**

Model Name	PWR-12150-USJP-SA-T	PWR-12150-EU-SA-T	PWR-12150-UK-SA-T	PWR-12150-AU-SA-T	PWR-12150-CN-SA-T
					
<b>Input Rating</b>					
I/P	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz
<b>Input Plug</b>					
Plug Type	US/JP	EU	UK	AU	CN
<b>Output Rating</b>					
O/P	1.5 A @ 12 VDC	1.5 A @ 12 VDC	1.5 A @ 12 VDC	1.5 A @ 12 VDC	1.5 A @ 12 VDC
<b>Protection Requirements</b>					
Protection	Over current protection/ Over voltage protection				
<b>Output Plug</b>					
Connector Type	L-Type 5.5/2.1/7.5	L-Type 5.5/2.1/7.5	L-Type 5.5/2.1/7.5	L-Type 5.5/2.1/7.5	L-Type 5.5/2.1/7.5
Outer Diameter	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm	5.5 ± 0.1 mm
Inner Diameter	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm	2.1 ± 0.1 mm
<b>Physical Characteristics</b>					
Dimensions (L x W x H)	32 x 70.3 x 88 mm	32 x 85.3 x 88 mm	50 x 91 x 82.5 mm	41 x 73.9 x 89.5 mm	32 x 69 x 88 mm
Packaged Dimensions (L x W x H)	50 x 70 x 83 mm	50 x 70 x 83 mm	50 x 70 x 83 mm	50 x 70 x 83 mm	50 x 70 x 83 mm
Weight	200 g	200 g	200 g	200 g	200 g
Cord Length	1500 ± 200 mm	1500 ± 200 mm	1500 ± 200 mm	1500 ± 200 mm	1500 ± 200 mm
<b>Environmental Limits</b>					
Operating Temperature	-40 to 75°C (-40 to 167°F)	-40 to 75°C (-40 to 167°F)	-40 to 75°C (-40 to 167°F)	-40 to 75°C (-40 to 167°F)	-40 to 75°C (-40 to 167°F)
Storage Temperature	-20 to 70°C (-4 to 158°F)	-20 to 70°C (-4 to 158°F)	-20 to 70°C (-4 to 158°F)	-20 to 70°C (-4 to 158°F)	-20 to 70°C (-4 to 158°F)
<b>Regulatory Approvals</b>					
Safety	FCC/UL/PSE	TUV/CE/GS	CE	RCM	CCC
<b>Related Products</b>					
Related Products	NPort 5110-T, NPort 5450-T, NPort 5450I-T, NPort 5110A-T, NPort 5610-8-DTL-T, NPort 5650-8-DTL-T, NPort 5650I-8-DTL-T, NPort 5130A-T, NPort 5150A-T, NPort 5210A-T, NPort 5230A-T, NPort 5250A-T, NPort 6100-T, NPort 6200-T, NPort 6400-T				