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 up/down 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: Supports standard baudrates (unit=bps)
  - NPort 5110: 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k
  - NPort 5130/5150: 50, 75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k, 460.8k, 921.6k

Serial Signals
- RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND
- RS-422: Tx+, Tx-, Rx+, Rx-, GND
- RS-485-4w: Data+, Data-, 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

- 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, 4.x
- Android API: Android 3.1.x and later

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 PF MF
  - IEC 61000-4-11 DI Ps
Serial-to-Ethernet Device Servers

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

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

<table>
<thead>
<tr>
<th>Moxa Model Name</th>
<th>PWR-12050-WPUSJP-S2</th>
<th>PWR-12050-WPEU-S2</th>
<th>PWR-12050-WPUK-S2</th>
<th>PWR-12050-WPAU-S2</th>
<th>PWR-12050-WPCN-S2</th>
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<tbody>
<tr>
<td>Manufacturer</td>
<td>ENG</td>
<td>ENG</td>
<td>ENG</td>
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**Serial-to-Ethernet Device Servers**

DC Power Cord

**Locking barrel plug to bare wires**

CBL-PJ21NOPEN-BK-30

Cable Length: 300 ± 20 mm
# AC Power Adapters (wide temp.)

*Locking barrel plugs, 12 VDC, 1.5 A*

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<tr>
<td>Manufacturer</td>
<td>Elementech</td>
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**Input Rating**

<table>
<thead>
<tr>
<th>Plug Type</th>
<th>US/JP</th>
<th>EU</th>
<th>UK</th>
<th>AU</th>
<th>CN</th>
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<tbody>
<tr>
<td>Input Rating</td>
<td>100-240 VAC, 50-60 Hz</td>
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**Input Plug**

<table>
<thead>
<tr>
<th>Connector Type</th>
<th>L-Type 5.5/2.1/7.5</th>
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<tbody>
<tr>
<td>Outer Diameter</td>
<td>2.1 ± 0.1 mm</td>
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<tr>
<td>Inner Diameter</td>
<td>2.1 ± 0.1 mm</td>
</tr>
<tr>
<td>Dimensions (L x W x H)</td>
<td>32 x 70.3 x 88 mm</td>
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<tr>
<td>Weight</td>
<td>200 g</td>
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<tr>
<td>Length</td>
<td>1500 ± 200 mm</td>
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**Protection Requirements**

<table>
<thead>
<tr>
<th>Protection</th>
<th>Over current protection/ Over voltage protection</th>
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</table>

**Environmental Limits**

| Operating Temperature | -40 to 75°C (-40 to 167°F) |
| Storage Temperature | -20 to 70°C (-4 to 158°F) |
| Adjacent 6 ft | | |

**Regulatory Approvals**

<table>
<thead>
<tr>
<th>Safety</th>
<th>FCC/UL/CE</th>
<th>TUV/CE/CSA</th>
<th>CE</th>
<th>RCM</th>
<th>CCC</th>
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