Serial-to-Ethernet Device Servers

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 or web browser
- Adjustable termination resistor for RS-485 ports

See also NPort 5100A, p. 9-19

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, DCD, GND
RS-422: T+, T-, R+, R-, GND
RS-485-4w: T+, T-, R+, R-, GND
RS-485-2w: Data+, Data-, GND

Software
Network Protocols: ICMP, IP, 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 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: 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)

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
NPort® 5110
NPort® 5130
NPort® 5150

Dimensions

<table>
<thead>
<tr>
<th>NPort® 5110</th>
<th>NPort® 5130</th>
<th>NPort® 5150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit: mm (inch)</td>
<td>Unit: mm (inch)</td>
<td>Unit: mm (inch)</td>
</tr>
<tr>
<td>43.3 (1.70)</td>
<td>43.3 (1.70)</td>
<td>43.2 (1.70)</td>
</tr>
<tr>
<td>22.0 (0.87)</td>
<td>22.0 (0.87)</td>
<td>22.0 (0.87)</td>
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</tbody>
</table>

Pin Assignment

DB9 male connector

<table>
<thead>
<tr>
<th>PIN</th>
<th>RS-232</th>
<th>RS-422/485-4w</th>
<th>RS-485-2w</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DCD</td>
<td>Tx+(A)</td>
<td>Data+(B)</td>
</tr>
<tr>
<td>2</td>
<td>RxD</td>
<td>Tx+(B)</td>
<td>Data+(B)</td>
</tr>
<tr>
<td>3</td>
<td>TxD</td>
<td>Rx+(B)</td>
<td>Data-(A)</td>
</tr>
<tr>
<td>4</td>
<td>DTR</td>
<td>Rx+(A)</td>
<td>Data-(A)</td>
</tr>
<tr>
<td>5</td>
<td>GND</td>
<td>GND</td>
<td>GND</td>
</tr>
<tr>
<td>6</td>
<td>DSR</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>7</td>
<td>RTS</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>8</td>
<td>CTS</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
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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
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 5100 device server
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

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