

# NPort® 5600-8-DT Lite Series

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



- > 8 serial ports supporting RS-232/422/485
- > Compact desktop design
- > 10/100M auto-sensing Ethernet
- > Configure via Telnet/Web/Windows utility
- > Socket modes: TCP server/TCP client/UDP/Real COM
- > SNMP MIB-II for network management



### Overview

NPort® 5600-8-DTL device servers can conveniently and transparently connect 8 serial devices to an Ethernet network, allowing you to network your existing serial devices with basic configurations. You can both centralize management of your serial devices and distribute management hosts over the network. The NPort® 5600-8-DTL device servers have a smaller form factor than our 19-inch models, making them a great choice for applications that need additional serial ports when mounting rails are not available.

#### Convenient Design for RS-485 Applications

The NPort® 5650-8-DTL device servers support selectable 1 k $\Omega$  and 150 k $\Omega$  pull high/low resistors and a 120  $\Omega$  terminator. In some critical environments, termination resistors may be needed to prevent

the reflection of serial signals. When using termination resistors, it is also important to set the pull high/low resistors correctly so that the electrical signal is not corrupted. Since no set of resistor values is universally compatible with all environments, NPort® 5600-8-DTL device servers use DIP switches to allow users to adjust termination and pull high/low resistor values manually for each serial port.

#### LED Indicators to Ease Your Maintenance Tasks

The System LED, Serial Tx/Rx LEDs, and Ethernet LEDs (located on the RJ45 connector) provide a great tool for basic maintenance tasks and help engineers analyze problems in the field. The NPort® 5600's LEDs not only indicate current system and network status, but they also help field engineers monitor the status of attached serial devices.

### Appearance



### 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:** 8  
**Serial Standards:**  
 NPort 5610-8-DTL: RS-232  
 NPort 5650-8-DTL/5650I-8-DTL: RS-232/422/485  
**Connector:** DB9 male  
**Serial Line Protection:**  
 15 kV ESD protection for all signals  
 2 kV isolation protection (NPort 5650I-8-DTL only)

**RS-485 Data Direction Control:** ADDC® (Automatic Data Direction Control)

**Pull High/Low Resistor for RS-485:** 1 k $\Omega$ , 150 k $\Omega$

**Terminator for RS-485:** 120  $\Omega$

#### Serial Communication Parameters

**Data Bits:** 5, 6, 7, 8  
**Stop Bits:** 1, 1.5, 2  
**Parity:** None, Even, Odd, Space, Mark  
**Flow Control:** DSR/DTR and RTS/CTS (RS-232 only), XON/XOFF  
**Baudrate:** 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, SNTP, Rtelnet, ARP, RFC2217

**Configuration Options:** Web Console, Telnet Console, Serial 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:**

NPort 5610-8-DTL: 1,760 g (3.88 lb)

NPort 5650-8-DTL: 1,770 g (3.90 lb)

NPort 5650I-8-DTL: 1,850 g (4.08 lb)

**Environmental Limits**

**Operating Temperature:**

Standard Models: 0 to 60°C (32 to 140°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 5610-8-DTL: 340 mA @ 12 VDC

NPort 5650-8-DTL: 470 mA @ 12 VDC

NPort 5650I-8-DTL: 740 mA @ 12 VDC

**Standards and Certifications**

**Safety:** UL 60950-1

**EMC:** EN 55022/24

**EMI:** CISPR 22, 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: 0.5 kV

IEC 61000-4-5 Surge: Power: 2 kV; Signal: 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**

**Alert Tools:** Built-in buzzer and RTC (real-time clock)

**Automatic Reboot Trigger:** Built-in WDT (watchdog timer)

**MTBF** (mean time between failures)

**Time:** NPort 5610-8-DTL: 953,388 hrs

NPort 5650-8-DTL: 740,457 hrs

NPort 5650I-8-DTL: 258,150 hrs

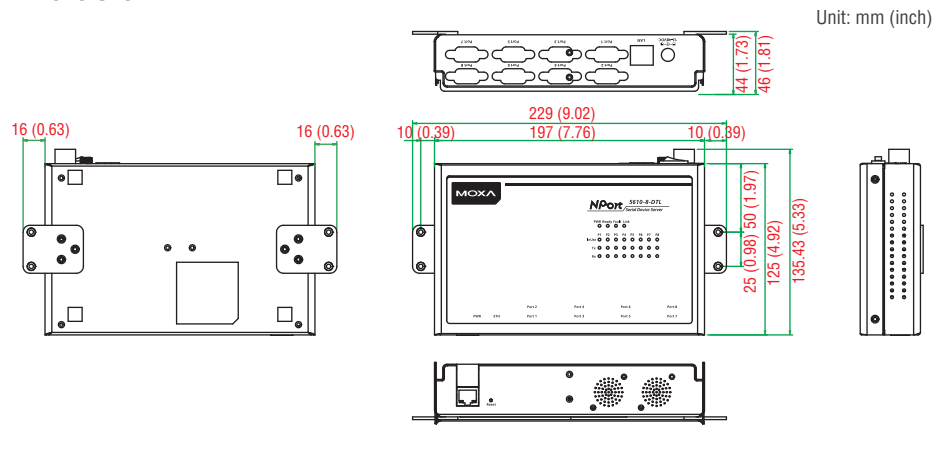
**Standard:** Telcordia (Bellcore) Standard TR/SR

**Warranty**

**Warranty Period:** 5 years

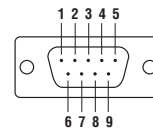
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**



**Pin Assignment**

**DB9 male connector**



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 5610-8-DTL:** 8-port RS-232 desktop device server with DB9 male connectors, 0 to 60°C operating temperature

**NPort 5650-8-DTL:** 8-port RS-232/422/485 desktop device server with DB9 male connectors, 0 to 60°C operating temperature

**NPort 5650I-8-DTL:** 8-port RS-232/422/485 desktop device server with DB9 male connectors and 2 kV isolation, 0 to 60°C operating temperature

**NPort 5610-8-DTL-T:** 8-port RS-232 desktop device server with DB9 male connectors, -40 to 75°C operating temperature

**NPort 5650-8-DTL-T:** 8-port RS-232/422/485 desktop device server with DB9 male connectors, -40 to 75°C operating temperature

**NPort 5650I-8-DTL-T:** 8-port RS-232/422/485 desktop device server with DB9 male connectors and 2 kV isolation, -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

**CBL-PJ21NOPEN-BK-30:** Locking barrel plug to bare-wires cable

**Mini DB9F-to-TB:** DB9 female to terminal block adapter for RS-422/485 applications

**WK-35-04:** Wall-mounting kit, 2 plates with 6 screws

**PWR-12200-DT-S1:** Desktop power supply (requires power cord), 12 VDC 2 A, 100-240 VAC, 0 to 40°C operating temperature

**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 5600-8-DTL device server
- 100 to 240 VAC power adapter (excluding T model): PWR-12200-DT-S1
- 1 Ethernet cable: CBL-RJ458P-100
- 1 wall-mounting kit: WK-35-04
- 1 power cord (suitable for your region)
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card

**Note:** The package includes one power cord suitable for your region.





# AC Power Adapters (standard temp.)

## Desktop type power adapters

Model Name	PWR-12200-DT-S1	PWR-12125-DT-S2	PWR-12150-CN-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
<b>Input Plug</b>			
Plug Type	Desktop	Desktop	CN
<b>Output Rating</b>			
O/P	2 A @ 12 VDC	1.25 A @ 12 VDC	1.5 A @ 12 VDC
<b>Output Plug</b>			
Connector Type	S-Type 5.5/2.1/7.5	S-Type 5.5/2.1/7.5	S-Type 5.5/2.1/7.5
Outer Diameter	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
<b>Physical Characteristics</b>			
Dimensions (L x W x H)	110.8 x 51.8 x 32 mm	75 x 47.5 x 27.3 mm	70 x 45 x 54 mm
Packaged Dimensions (L x W x H)	135 x 75 x 35 mm	100 x 70 x 51.5 mm	83 x 50 x 70 mm
Weight	200 g	200 g	200 g
Cord Length	1800 ± 200 mm	1530 ± 100 mm	1800 ± 200 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)
Storage Temperature	-20 to 70°C (-4 to 158°F)	-10 to 70°C (14 to 158°F)	-20 to 70°C (-4 to 158°F)
<b>Regulatory Approvals</b>			
Safety	UL/CE/FCC/GS/CCC/PSE/BSMI/TUV	UL/GS/CE/FCC/PSE	CCC
<b>Related Products</b>			
Related Products	NPort 5610-8-DT, NPort 5610-8-DT-J, NPort 5650-8-DT, NPort 5650-8-DT-J, NPort 5650I-8-DT, NPort 5610-8-DTL, NPort 5650-8-DTL, NPort 5650I-DTL	NPort 6150, NPort 6250-M-SC, NPort 6250, NPort 6250-S-SC, NPort 6450, UPort 1250I, UPort 1450, UPort 1450I, UPort 1610-8, UPort 1650-8	NPort 6150, NPort 6250, NPort 6250-M-SC, NPort 6250-S-SC, NPort 6450, UPort 1250I, UPort 1450, UPort 1450I, UPort 1610-8, UPort 1650-8

Note: PWR-12200-DT-S1 and PWR-12125-DT-S2 not included with power cord

Model Name	PWC-C13US-3B-183	PWC-C-13EU-3B-183 (CEE 7/7 to IEC C13)	PWC-C13UK-3B-183	PWC-C13JP-3B-183	PWC-C13AU-3B-183	PWC-C13CN-3B-183
						
Region	US	EU	UK	JP	AU	CN
Voltage	125 V	250 V	250 V	125 V	250 V	250 V
Thickness	6.3 ± 0.2 mm	6.7 ± 0.2 mm	6.7 ± 0.2 mm	7.0 ± 0.2 mm	6.7 ± 0.2 mm	6.7 ± 0.2 mm
Max. Current	10 A	10 A	10 A	7 A	10 A	10 A
Length	1830 ± 30 mm	1830 ± 30 mm	1830 ± 30 mm	1830 ± 30 mm	1830 ± 30 mm	1830 ± 30 mm
Related Products	CN2500 Series, NPort 6600 Series, NPort 5600 Series, PWR-12200-DT-S1					

Model Name	PWC-C7US-2B-183	PWC-C7EU-2B-183	PWC-C7UK-2B-183	PWC-C7JP-2B-183	PWC-C7AU-2B-183	PWC-C7CN-2B-183
						
Region	US	EU	UK	JP	AU	CN
Length	1830 ± 200 mm	1830 ± 200 mm	1830 ± 200 mm	1830 ± 200 mm	1830 ± 200 mm	1830 ± 200 mm
Related Products	PWR-12125-DT-S2					

## Locking barrel plug to bare wires

### CBL-PJ21NOPEN-BK-30

Cable Length: 300 ± 20 mm

