

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
- > Built-in 15 kV ESD protection for all serial signals
- > 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 needing additional serial ports when mounting rails are not available.

Convenient Design for RS-485 Applications

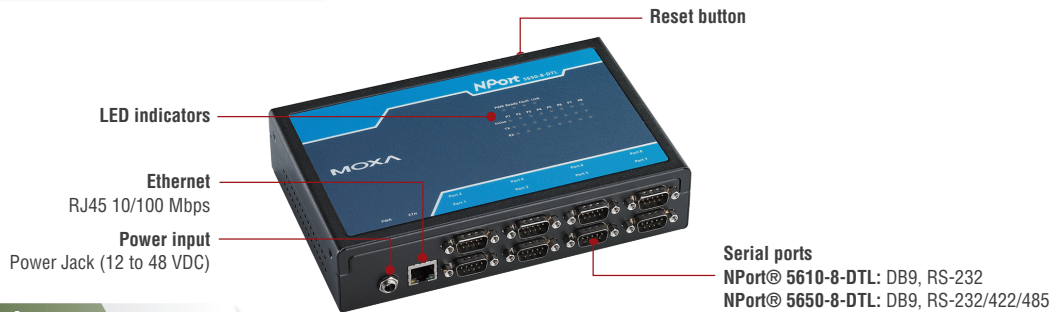
The NPort® 5650-8-DTL device servers support selectable 1 k Ω and 150 k Ω pull high/low resistors and a 120 Ω terminator. In some critical environments, termination resistors may be needed to prevent

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 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 Ω , 150 k Ω
Terminator for RS-485: 120 Ω

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 (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: 1760 g

NPort 5650-8-DTL: 1770 g

NPort 5650I-8-DTL: 1850 g

Dimensions:

Without ears: 197 x 44 x 125 mm (7.76 x 1.73 x 4.92 in)

With ears: 229 x 46 x 125 mm (9.01 x 1.81 x 4.92 in)

With DIN-Rail kit on bottom panel: 197 x 53 x 125 mm (7.76 x 2.09 x 4.92 in)

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)

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 5610-8-DTL:

340 mA @ 12 V, 180 mA @ 24 V, 110 mA @ 48 V

NPort 5650-8-DTL:

470 mA @ 12 V, 250 mA @ 24 V, 140 mA @ 48 V

NPort 5650I-8-DTL:

740 mA @ 12 V, 370 mA @ 24 V, 220 mA @ 48 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

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

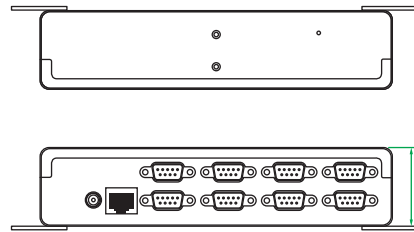
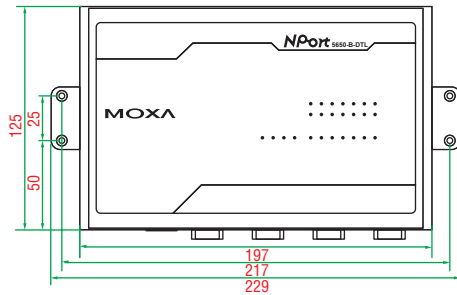
Automatic Reboot Trigger: Built-in WDT (watchdog timer)

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

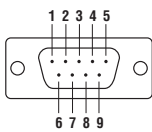
Dimensions



Unit: mm (inch)

Pin Assignment

DB9 male connector



NPort® 5610-8-DTL (RS-232)

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

NPort® 5650-8-DTL/5650I-8-DTL (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 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)

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

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

Package Checklist

- NPort 5600-8-DTL device server
- 100~240 VAC power adapter (excluding T models)
- Wall mount kit and DIN-Rail kit
- Documentation and software CD
- Quick installation guide (printed)
- Warranty card