

NPort 5600-DT Series

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



Features and Benefits

- 8 serial ports supporting RS-232/422/485
- Compact desktop design
- 10/100M auto-sensing Ethernet
- Easy IP address configuration with LCD panel
- Configure by Telnet, web browser, or Windows utility
- Socket modes: TCP server, TCP client, UDP, Real COM
- SNMP MIB-II for network management

Certifications



Introduction

NPort 5600-8-DT device servers can conveniently and transparently connect 8 serial devices to an Ethernet network, allowing you to network your existing serial devices with only basic configuration. You can both centralize management of your serial devices and distribute management hosts over the network. Since the NPort 5600-8-DT device servers have a smaller form factor compared to our 19-inch models, they are a great choice for applications that need additional serial ports, but for which mounting rails are not available.

Convenient Design for RS-485 Applications

The NPort 5650-8-DT device servers support selectable 1 kilo-ohm and 150 kilo-ohms pull high/low resistors and a 120-ohm 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-DT device servers use DIP switches to allow users to adjust termination and pull high/low resistor values manually for each serial port.

Convenient Power Inputs

The NPort 5650-8-DT device servers support both power terminal blocks and power jacks for ease of use and greater flexibility. Users can connect the terminal block directly to a DC power source, or use the power jack to connect to an AC circuit through an adapter.

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.

Two Ethernet Ports for Convenient Cascade Wiring

The NPort 5600-8-DT device servers come with two Ethernet ports that can be used as Ethernet switch ports. Connect one port to the network or server, and the other port to another Ethernet device. The dual Ethernet ports eliminate the need to connect each device to a separate Ethernet switch, reducing wiring costs.

Appearance



Specifications

Ethernet Interface

| | |
|---------------------------------------|-------------------|
| 10/100BaseT(X) Ports (RJ45 connector) | 2 |
| Magnetic Isolation Protection | 1.5 kV (built-in) |

Ethernet Software Features

| | |
|-----------------------------|---|
| Configuration Options | Serial Console Telnet Console Web Console (HTTP/HTTPS) Windows Utility |
| Management | ARP BOOTP DHCP Client DNS HTTP HTTPS ICMP IPv4 LLDP Rtelnet SMTP SNMPv1/v2c TCP/IP Telnet UDP |
| Filter | IGMP v1/v2 |
| Windows Real COM Drivers | Windows 11/10/8.1/8/7/Vista/XP/ME/98/95 Windows Server 2022/2019/2016/2012 R2/2012/2008 R2/2008/2003 Windows Embedded CE 6.0/5.0, Windows XP Embedded |
| Linux Real TTY Drivers | Kernel versions 6.x, 5.x, 4.x, 3.x, 2.6.x, and 2.4.x |
| Fixed TTY Drivers | macOS Versions: 11.x, 10.12 to 10.15 SCO UNIX, SCO OpenServer, SCO UnixWare 7, Sun Solaris 10, QNX 4.25, QNX 6.x, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X |
| Arm®-based Platform Support | Linux Kernel 5.x/4.x |
| Virtual Machine | VMWare ESXi (Windows 11/10) VMware Fusion (Windows on macOS 10.12 to 11.x) Parallels Desktop (Windows on macOS 10.12 to 11.x) |
| Android API | Android 3.1.x and later |

| | |
|-----------------------------------|--|
| Time Management | SNTP |
| MIB | RFC1213, RFC1317 |
| Security Functions | |
| Authentication | Local database |
| Encryption | HTTPS AES-128 RSA-1024 SHA-1 SHA-256 |
| Security Protocols | HTTPS (TLS 1.2) SNMPv3 |
| Serial Interface | |
| Connector | 8-pin RJ45: NPort 5610-8-DT-J/5650-8-DT-J DB9 male: NPort 5610-8-DT models/NPort 5650-8-DT models/NPort 5650I-8-DT models |
| No. of Ports | 8 |
| Serial Standards | NPort 5610-8-DT Models: RS-232 NPort 5650-8-DT Models: RS-232/422/485 |
| Baudrate | Supports standard baudrates (unit=bps): 50, 75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k, 460.8k, 921.6k |
| Data Bits | 5, 6, 7, 8 |
| Stop Bits | 1, 1.5, 2 |
| Parity | None, Even, Odd, Space, Mark |
| Flow Control | RTS/CTS DTR/DSR XON/XOFF |
| Pull High/Low Resistor for RS-485 | 1 kilo-ohm, 150 kilo-ohms |
| Terminator for RS-485 | 120 ohms |
| RS-485 Data Direction Control | Automatic Data Direction Control (ADDC) |
| Isolation | -I models: 2 kV |
| Surge | 0.5 kV |
| Console Port | RS-232 (TxD, RxD, GND), 3-pin (19200, n, 8, 1) |
| 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 |

Power Parameters

| | |
|-----------------------------|--|
| Input Current | NPort 5610-8-DT/NPort 5610-8-DT-J/ NPort 5610-8-DT-T: 611 mA @ 12 VDC NPort 5650-8-DT/NPort 5650-8-DT-J/ NPort 5650-8-DT-T: 615 mA @ 12 VDC NPort 5650I-8-DT/NPort 5650I-8-DT-T: 1066 mA @ 12 VDC |
| No. of Power Inputs | 2 |
| Input Voltage | 12 to 48 VDC |
| Reverse Polarity Protection | Supported |
| Source of Input Power | TB, Power input jack |

Reliability

| | |
|--------------------------|---|
| Automatic Reboot Trigger | Built-in WDT |
| Alert Tools | Built-in buzzer and RTC (real-time clock) |

Physical Characteristics

| | |
|--|--|
| Housing | Metal |
| Installation | Desktop DIN-rail mounting (with optional kit) Wall mounting (with optional kit) |
| Dimensions (with ears) | 229 x 46 x 125 mm (9.01 x 1.81 x 4.92 in) |
| Dimensions (without ears) | 197 x 44 x 125 mm (7.76 x 1.73 x 4.92 in) |
| Dimensions (with DIN-rail kit on bottom panel) | 197 x 53 x 125 mm (7.76 x 2.09 x 4.92 in) |
| Weight | NPort 5610-8-DT: 1,570 g (3.46 lb) NPort 5610-8-DT-J: 1,520 g (3.35 lb) NPort 5610-8-DT-T: 1,320 g (2.91 lb) NPort 5650-8-DT: 1,590 g (3.51 lb) NPort 5650-8-DT-J: 1,540 g (3.40 lb) NPort 5650-8-DT-T: 1,340 g (2.95 lb) NPort 5650I-8-DT: 1,660 g (3.66 lb) NPort 5650I-8-DT-T: 1,410 g (3.11 lb) |
| Interactive Interface | LCD panel display (standard temp. models only) Push buttons for configuration (standard temp. models only) |

Environmental Limits

| | |
|--|---|
| Operating Temperature | Standard Models: 0 to 55°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F) |
| Storage Temperature (package included) | -40 to 75°C (-40 to 167°F) |
| Ambient Relative Humidity | 5 to 95% (non-condensing) |

Standards and Certifications

| | |
|-----|--------------------------------|
| EMC | EN 55032/35 |
| EMI | CISPR 32, FCC Part 15B Class A |

| | |
|--------|--|
| EMS | IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 0.5 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 |
| Safety | UL 60950-1 IEC 62368-1 |

Declaration

| | |
|---------------|-------------------|
| Green Product | RoHS, CRoHS, WEEE |
|---------------|-------------------|

MTBF

| | |
|-----------|-------------------------------|
| Time | 836,374 hrs |
| Standards | Telcordia (Bellcore) Standard |

Warranty

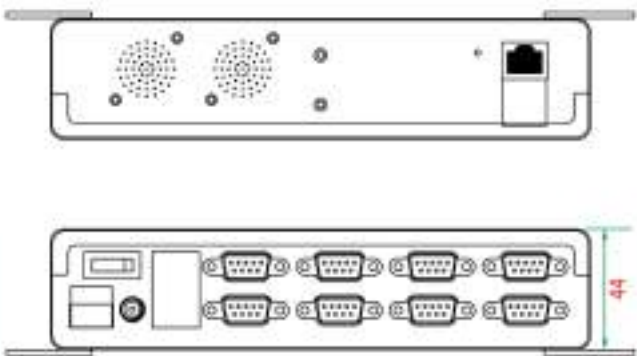
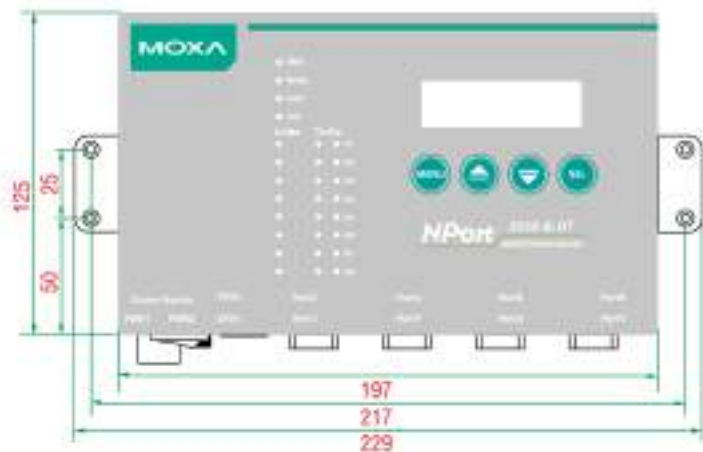
| | |
|-----------------|--|
| Warranty Period | 5 years |
| Details | See www.moxa.com/warranty |

Package Contents

| | |
|------------------|---|
| Device | 1 x NPort 5600-DT Series device server |
| Installation Kit | 1 x wall-mounting kit |
| Cable | 1 x Ethernet, RJ45 |
| Power Supply | 1 x power adapter for your region (excluding -T models) |
| Documentation | 1 x quick installation guide 1 x warranty card |

Dimensions

Unit: mm



Ordering Information

| Model Name | Serial Interface | Serial Interface Connector | Serial Interface Isolation | Operating Temp. | Power Adapter Included in Package | Input Voltage |
|--------------------|------------------|----------------------------|----------------------------|-----------------|-----------------------------------|---------------|
| NPort 5610-8-DT | RS-232 | DB9 | – | 0 to 55°C | Yes | 12 to 48 VDC |
| NPort 5610-8-DT-T | RS-232 | DB9 | – | -40 to 75°C | No | 12 to 48 VDC |
| NPort 5610-8-DT-J | RS-232 | 8-pin RJ45 | – | 0 to 55°C | Yes | 12 to 48 VDC |
| NPort 5650-8-DT | RS-232/422/485 | DB9 | – | 0 to 55°C | Yes | 12 to 48 VDC |
| NPort 5650-8-DT-T | RS-232/422/485 | DB9 | – | -40 to 75°C | No | 12 to 48 VDC |
| NPort 5650-8-DT-J | RS-232/422/485 | 8-pin RJ45 | – | 0 to 55°C | Yes | 12 to 48 VDC |
| NPort 5650I-8-DT | RS-232/422/485 | DB9 | 2 kV | 0 to 55°C | Yes | 12 to 48 VDC |
| NPort 5650I-8-DT-T | RS-232/422/485 | DB9 | 2 kV | -40 to 75°C | No | 12 to 48 VDC |

Accessories (sold separately)

DIN-Rail Mounting Kits

| | |
|-------|------------------------------|
| DK35A | DIN-rail mounting kit, 35 mm |
|-------|------------------------------|

Wall-Mounting Kits

| | |
|----------|---|
| WK-35-04 | Wall-mount kit with 2 plates (35 x 44 x 2.5 mm), 6 screws (FTS x 6 M3 x 4 mm) |
|----------|---|

Power Adapters

| | |
|---------------------|---|
| PWR-12300-WPUSJP-S2 | Locking barrel plug with 12 VDC, 3 A, 100 to 240 VAC, US/JP plug, 0 to 40°C operating temperature |
| PWR-12300-WPEU-S2 | Locking barrel plug with 12 VDC, 3 A, 100 to 240 VAC, EU plug, 0 to 40°C operating temperature |
| PWR-12300-WPCN-S2 | Locking barrel plug with 12 VDC, 3 A, 100 to 240 VAC, CN plug, 0 to 40°C operating temperature |
| PWR-12300-WPUK-S2 | Locking barrel plug with 12 VDC, 3 A, 100 to 240 VAC, UK plug, 0 to 40°C operating temperature |
| PWR-12300-WPAU-S2 | Locking barrel plug with 12 VDC, 3 A, 100 to 240 VAC, AU plug, 0 to 40°C operating temperature |

© Moxa Inc. All rights reserved. Updated Jan 02, 2024.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.