NPort® 5600 Desktop 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
> Easy IP address configuration with LCD panel
> 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-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 KΩ and 150 KΩ 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-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 adaptor.

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

LCD Panel

Push Buttons

LED Indicators

Ethernet Switch
RJ45 10/100 Mbps

Power Input
Both power Jack and
Terminal block 12-48VDC

Serial Ports
NPort 5610-8-DT: DB9, RS-232
NPort 5650-8-DT: DB9, RS-232/422/485
NPort 5610-8-DT-J: RJ45, RS-232
NPort 5650-8-DT-J: RJ45, RS-232/422/485

RS-232 Console Port

Reset Button

: Specifications

Ethernet Interface
Number of Ports: 2 (1 IP)
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-DT: RS-232
NPort 5650-8-DT: RS-232/422/485
Connector:
NPort 5610-8-DT/5650-8-DT/5650I-8-DT: DB9 male
NPort 5610-8-DT-J/5650-8-DT-J: RJ45 (8 pins)
Serial Line Protection: 2 kV isolation protection (NPort 5650I-8-DT only)
RS-485 Data Direction Control: ADDC® (automatic data direction control)
Pull High/Low Resistor for RS-485: 1 kΩ, 150 kΩ
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: 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

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

Mini Screen with Push Buttons
LCD Panel: Liquid Crystal Display on the case
Push Buttons: Four push buttons for convenient on-site configuration

Physical Characteristics
Housing: Metal, IP30 protection
Weight:
NPort 5610-8-DT: 1760 g
NPort 5610-8-DT-J: 1710 g
NPort 5650-8-DT: 1770 g
NPort 5650-8-DT-J: 1710 g
NPort 5650I-8-DT: 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: 0 to 55°C (32 to 131°F)
Storage Temperature: -20 to 70°C (-4 to 158°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Power Requirements
Input Voltage: 12 to 48 VDC
Power Consumption:
NPort 5610-8-DT: 611 mA @ 12 V, 300 mA @ 24 V, 140 mA @ 48 V
NPort 5610-8-DT-J: 611 mA @ 12 V, 300 mA @ 24 V, 140 mA @ 48 V
NPort 5650-8-DT: 615 mA @ 12 V, 300 mA @ 24 V, 156 mA @ 48 V
NPort 5650I-8-DT: 1066 mA @ 12 V, 510 mA @ 24 V, 200 mA @ 48 V
NPort 5650-8-DT-J: 615 mA @ 12 V, 300 mA @ 24 V, 156 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
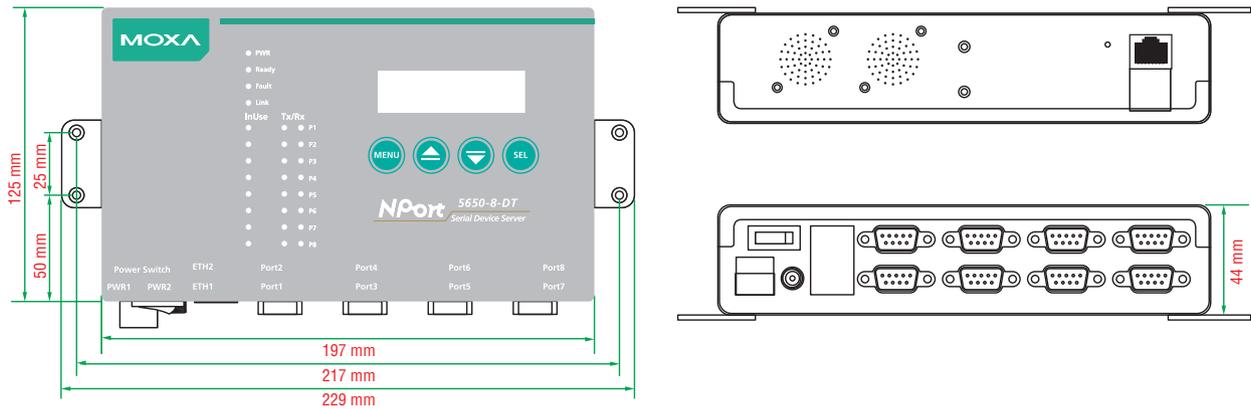**EMS:** EN 55024

Reliability
Alert Tools: Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger: Built-in WDT (watchdog timer)
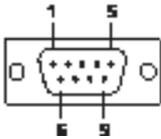**MTBF (mean time between failures):** 163,356 hrs

Warranty
Warranty Period: 5 years
Details: See www.moxa.com/warranty
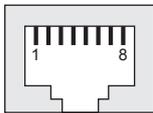
Dimensions

Pin Assignment

DB9 male connector

NPort 5610-8-DT (RS-232)

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

NPort 5650-8-DT / 5650I-8-DT (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	–	–

8-pin RJ45 connector

NPort 5610-8-DT-J (RS-232 only) / 5650-8-DT-J (RS-232/422/485)

PIN	RS-232	RS-422/485-4w	RS-485-2w
1	DSR	–	–
2	RTS	TxD+	–
3	GND	GND	GND
4	TxD	TxD-	–
5	RxD	RxD+	Data+
6	DCD	RxD-	Data-
7	CTS	–	–
8	DTR	–	–

Ordering Information

Available Models

NPort 5610-8-DT: 8-port RS-232 desktop device server with DB9 male connectors
NPort 5610-8-DT-J: 8-port RS-232 desktop device server with RJ45 connectors
NPort 5650-8-DT: 8-port RS-232/422/485 desktop device server with DB9 male connectors
NPort 5650-8-DT-J: 8-port RS-232/422/485 desktop device server with RJ45 connectors
NPort 5650I-8-DT: 8-port RS-232/422/485 desktop device server with DB9 male connectors, and 2 kV optical isolation

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.

Package Checklist

- 1 NPort 5600-8-DT 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.