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.
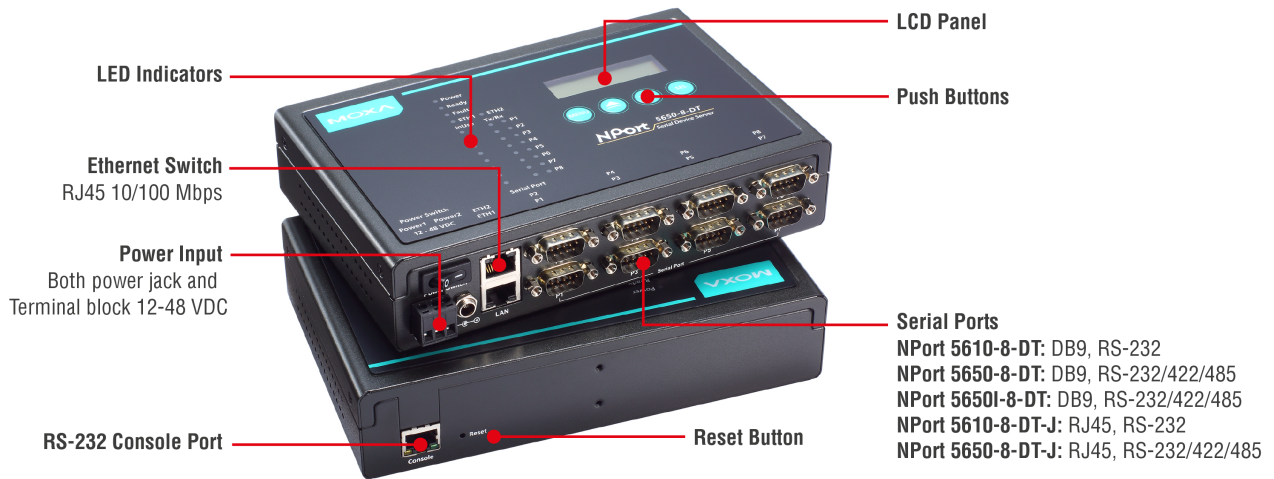
LED Indicators to Ease Your Maintenance Tasks

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

LCD Panel

LED Indicators

Push Buttons

Ethernet Switch
RJ45 10/100 Mbps

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

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

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
MIB	RFC1213, RFC1317
Time Management	SNTP
Linux Real TTY Drivers	Kernel versions: 2.4.x, 2.6.x, 3.x, 4.x, and 5.x
Fixed TTY Drivers	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, macOS 10.12, macOS 10.13, macOS 10.14, macOS 10.15
Android API	Android 3.1.x and later
Windows Real COM Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10/11 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (x64), Windows Server 2022, Windows Embedded CE 5.0/6.0, Windows XP Embedded

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

MOXA
Reliable Networks ▲ Sincere Service

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	ADDC (automatic data direction control)
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
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)
Installation	Desktop, DIN-rail mounting (with optional kit), Wall mounting (with optional kit)
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 60°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
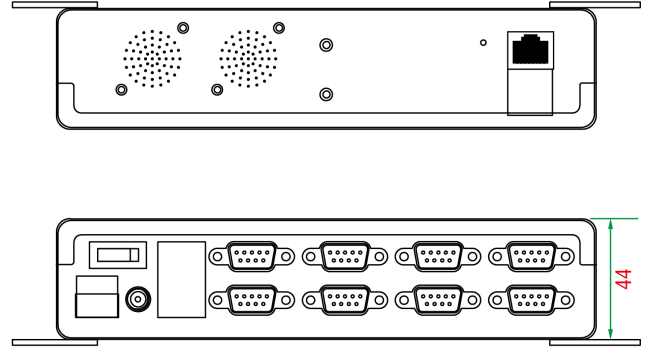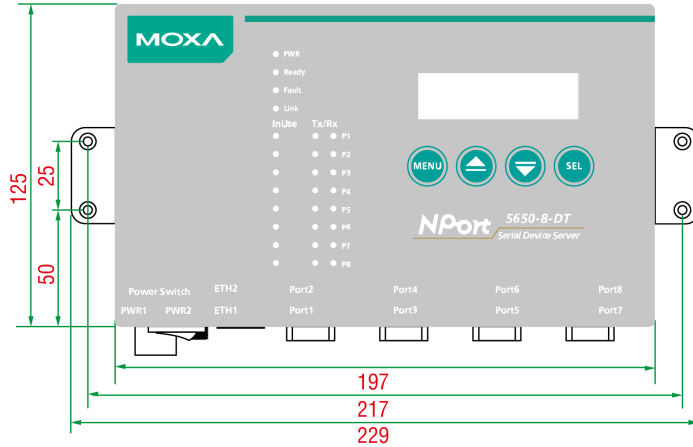
Ordering Information

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	2 plates (35 x 44 x 2.5mm) with 6 screws (FTSx6 M3x4mm)

Power Adapters

PWR-12300-WPAU-S1	Locking barrel plug, 12 VDC, 3 A, 100 to 240 VAC, Australia (AU) plug, 0 to 40°C operating temperature
PWR-12300-WPCN-S1	Locking barrel plug, 12 VDC, 3 A, 100 to 240 VAC, China (CN) plug, 0 to 40°C operating temperature
PWR-12300-WPEU-S1	Locking barrel plug, 12 VDC, 3 A, 100 to 240 VAC, Continental Europe (EU) plug, 0 to 40°C operating temperature

PWR-12300-WPUK-S1	Locking barrel plug, 12 VDC, 3 A, 100 to 240 VAC, United Kingdom (UK) plug, 0 to 40°C operating temperature
PWR-12300-WPUSJP-S1	Locking barrel plug, 12 VDC, 3 A, 100 to 240 VAC, United States/Japan (US/JP) plug, 0 to 40°C operating temperature

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