NPort 5600 Series

8 and 16-port Serial Device Servers

Features

- Up to 16 ports supporting RS-232, RS-422, or RS-485 operation
- Compact desktop model or standard 19-inch rackmount model
- Auto-detecting 10/100 Mbps Ethernet
- 15 KV ESD surge protection for all serial signals
- Easy IP address configuration with LCM (Liquid Crystal Module)
- Configuration by web console, Telnet console, and more
- TCP Server, TCP Client, UDP, and Real COM operation modes
- Supports SNMP MIB-II for network management

Internet Readiness for up to 16 Serial Devices

NPort 5600 device servers can conveniently and transparently connect up to 16 serial devices to an Ethernet, allowing you to network your existing serial devices with only basic configuration. Data transmission between the serial and Ethernet interfaces is bi-directional. By using NPort device servers, you not only protect your current hardware investment, but also allow for future network expansion. You can both centralize management of your serial devices and distribute management hosts over the network.

Compact Desktop Model and Standard 19-inch Rack-Mount Model

The NPort 5600 is available in a rackmount model, which has a professional cabinet design, Tx/Rx LEDs for all ports, and RS-232 RJ45 connectors. The rackmount model is suitable for mounting on a standard 19-inch rack, simplifying operation, maintenance, and administration. The NPort 5600 is also available in a compact desktop model, the NPort 5600-8-DT. The desktop model's most obvious benefit is its small size--it is only one-fourth the size of the rackmount model. With its small size, the desktop model can be mounted on a DIN-rail, wall, or desktop.

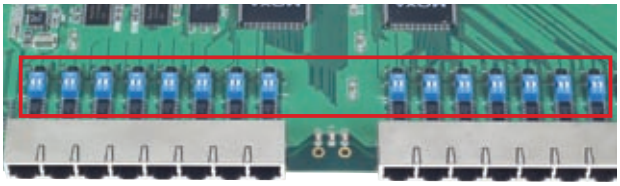
19” Rackmount Model

Desktop Model

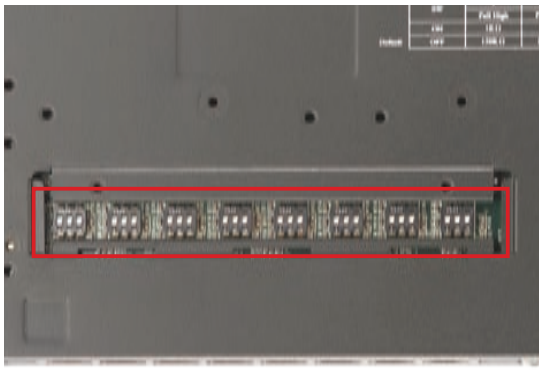
Adjustable Termination and Pull High/Low Resistors

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 for all environments, NPort 5600 device servers allow manual adjustment of termination and pull high/low resistor values for each serial port, using DIP switches.

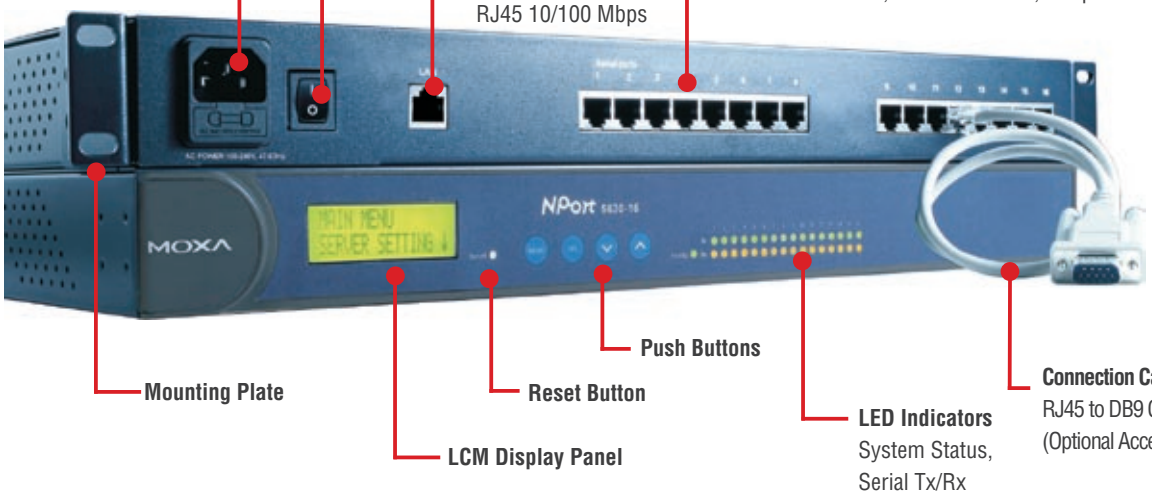
DIP Switches for NPort 5600



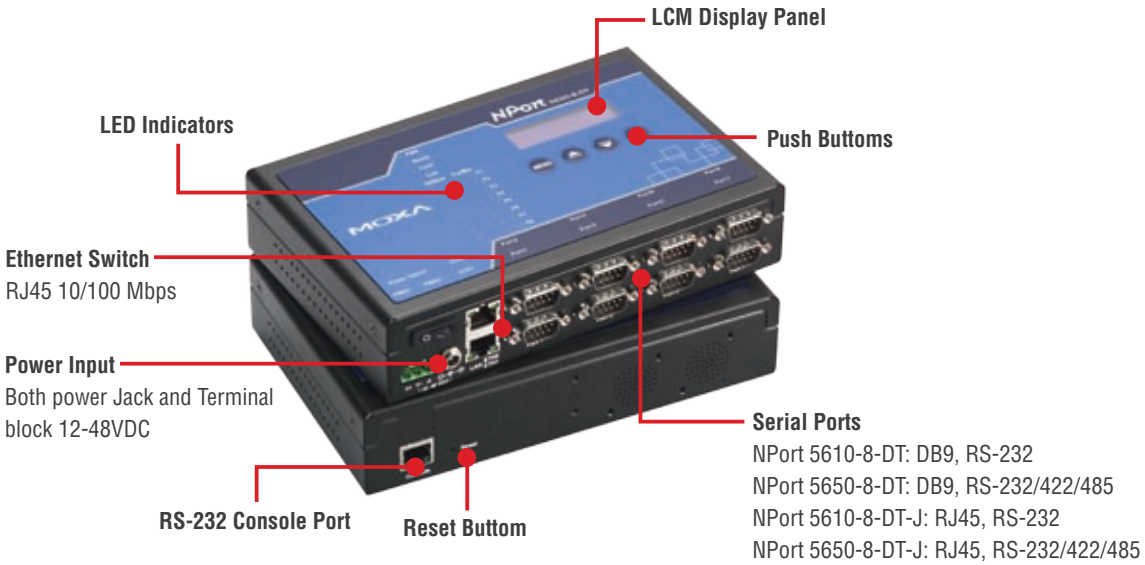
DIP Switches for NPort 5600-8-DT



NPort 5600, Rackmount Model Appearance



NPort 5600, Desktop Model



Ordering Information

NPort 5610-8-DT: 8-port RS-232 serial device server, DB9 connector, desktop model

NPort5610-8-DT-J: 8-port RS-232 serial device server, RJ45 connector, desktop model

NPort 5610-8: 8-port RS-232 serial device server, 100-240 VAC power input

NPort 5610-8-48V: 8-port RS-232 serial device server, 48 VDC power input

NPort 5630-8: 8-port RS-422/485 serial device server, 100-240 VAC power input

NPort 5650-8-DT: 8-port RS-232/422/485 serial device server, 100-240 VAC power input, desktop model

NPort 5650I-8-DT: NPort 5650-8-DT with 2 KV isolation

NPort 5650-8-DT-J: 8-port RS-232/422/485 serial device server, RJ45 connector, desktop model

NPort 5650-8: 8-port RS-232/422/485 to Ethernet secure device server, 100-240 VAC input

NPort 5650-8-M-SC: 8-port RS-232/422/485 serial device server, 10/100BaseF(X), multi mode fiber (SC connector)

NPort 5650-8-S-SC: 8-port RS-232/422/485 serial device server, 10/100BaseF(X), single mode fiber (SC connector)

NPort 5610-16: 16-port RS-232 serial device server, 100-240 VAC power input

NPort 5610-16-48V: 16-port RS-232 serial device server, 48 VDC power input

NPort 5630-16: 16-port RS-422/485 serial device server, 100-240 VAC power input

NPort 5650-16: 16-port RS-232/422/485 to Ethernet secure device server, 100-240 VAC power input

NPort 5650-16-M-SC: 16-port RS-232/422/485 serial device server, 10/100BaseF(X), multi mode fiber (SC connector)

NPort 5650-16-S-SC: 16-port RS-232/422/485 serial device server, 10/100BaseF(X), single mode fiber (SC connector)

Package Checklist

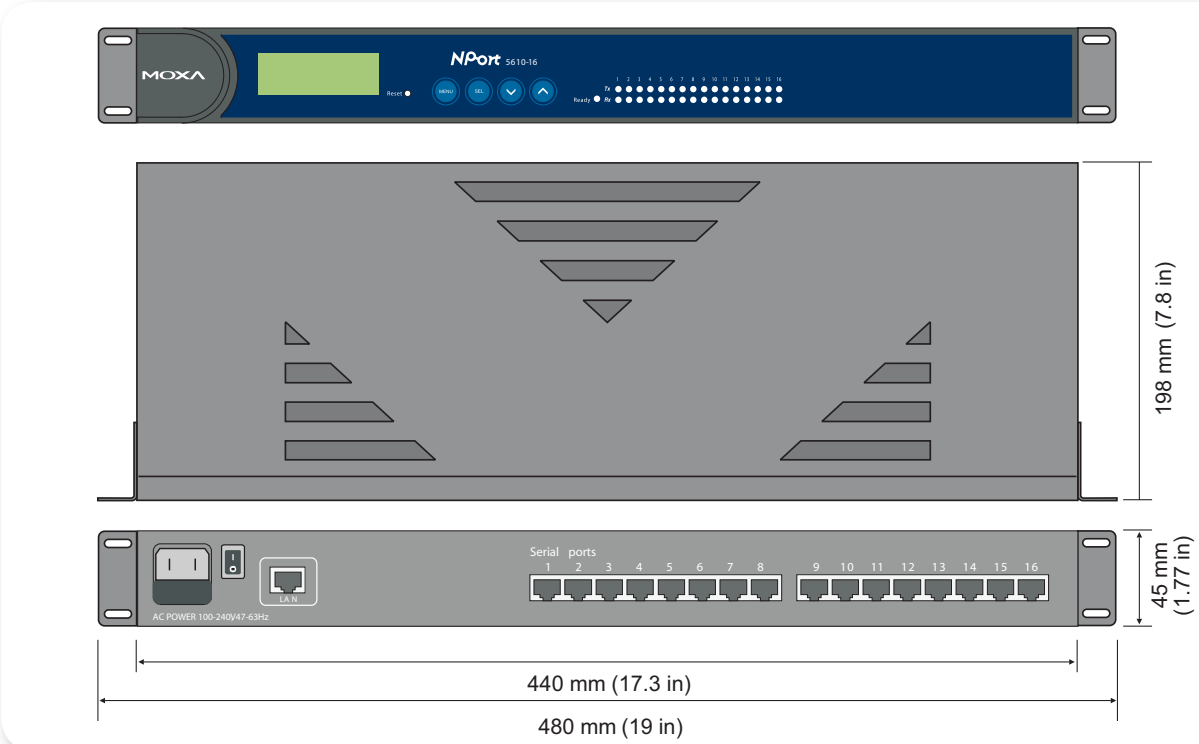
- 1 NPort 5600 Device Server
- Quick Installation Guide
- Document and Software CD ROM
- Power Cord (AC Model Only)
- Power Adaptor (Desktop Model Only)

Optional Accessories

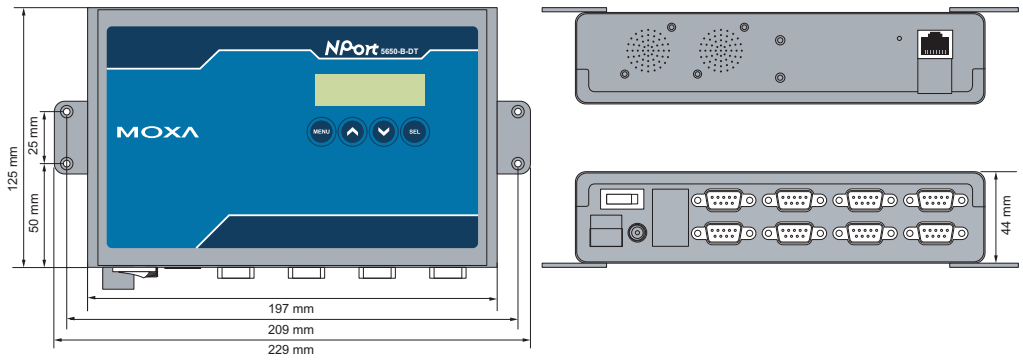
Power Cord: See page 12-10

Serial Cable & Serial Adaptor: See page 12-4

Dimensions (unit = mm / Rackmount Model)



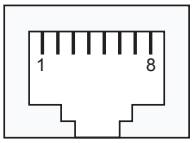
Dimensions (unit = mm / Desktop Model)



Pin Assignment

NPort 5610

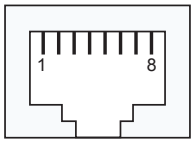
RJ45 RS-232 Port



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

NPort 5630

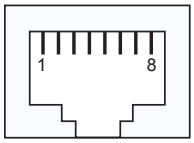
RJ45 RS-422/485 Port



PIN	RS-422/485 (4W)	RS-485 (2W)
1	---	---
2	---	---
3	TxD+	---
4	TxD-	---
5	RxD-	Data+
6	RxD+	Data-
7	GND	GND
8	---	---

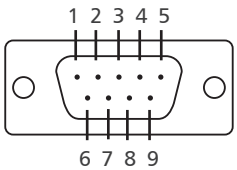
NPort 5650

RJ45 RS-232/422/485 Port



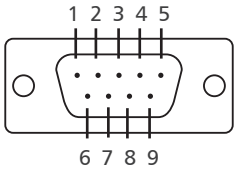
PIN	RS-232	RS-422/485 (4W)	RS-485 (2W)
1	DSR (in)	---	---
2	RTS (out)	TxD+	---
3	GND	GND	GND
4	TxD (out)	TxD-	---
5	RxD (in)	RxD+	Data+
6	DCD (in)	RxD-	Data-
7	CTS (in)	---	---
8	DTR (out)	---	---

NPort 5610-8-DT



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

NPort 5650-8-DT / NPort 5650I-8-DT



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	–	–
9	–	–	–

Specifications

LAN

Ethernet: 10/100 Mbps, RJ45

Protection: Built-in 1.5 KV magnetic isolation

Optical Fiber

Distance:

Multi mode: 0 to 2 km, 1310 nm (62.5/125 μm, 500 MHz*km)

Single mode: 0 to 40 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))

Min. TX Output:

Multi mode: -20 dBm

Single mode: 0 to 40 km, -5 dBm

Max. TX Output:

Multi mode: -14 dBm

Single mode: 0 to 40 km, 0 dBm

Sensitivity: -36 to -32 dBm (single), -34 to -30 dBm (multi)

NPort 5610 Serial Interface

Interface: RS-232

No. of Ports: 8 or 16, depending on model

Port Type: RJ45 (8-pin) or DB9 (male for DT model)

Signals: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

Serial Line Protection: 15 KV ESD for all signals

NPort 5630 Serial Interface

Interface: RS-422/485

No. of Ports: 8 or 16, depending on model

Port Type: RJ45 (8-pin)

Signals:

RS-422: Tx+, Tx-, Rx+, Rx-, GND

RS-485 (2-wire): Data+, Data-, GND

RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND

Serial Line Protection: 15 KV ESD for all signals

RS-485 Data Direction: ADDC™ (Automatic Data Direction Control)

NPort 5650 Serial Interface

Interface: RS-232/422/485

No. of Ports: 8 or 16, depending on model

Port Type: RJ45 or DB9 (male) for DT model

Signals:

RS-232: TxD, RxD, RTS, CTS, DTR, DSR, DCD, GND

RS-422: Tx+, Tx-, Rx+, Rx-, GND

RS-485 (2-wire): Data+, Data-, GND

RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND

Serial Line Protection: 15 KV ESD for all signals

RS-485 Data Direction: ADDC™ (Automatic Data Direction Control)

Power Line Protection

4 KV burst (EFT), EN61000-4-4

2 KV surge, EN61000-4-5

Advanced Built-in Features

HMI: LCM display with four push buttons

Buzzer

Real-Time Clock

Watchdog Timer

Serial Communication Parameters

Parity: None, Even, Odd, Space, Mark

Data Bits: 5, 6, 7, 8

Stop Bit(s): 1, 1.5, 2

Flow Control: RTS/CTS, XON/XOFF, DSR/DTR (only for RS-232)

Transmission Speed: 50 bps to 921.6 Kbps

Software Features

Protocols:

ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, SNTP, Rtelnet, ARP, PPP, RFC2217

Utilities:

NPort Administrator for Windows 95/98/ME/NT/2000/XP/2003/Vista

OS Driver Support:

Windows 95/98/ME/NT/2000//XP/2003/x64 Real COM driver/

Linux Real TTY driver/SCO Unix/SCO OpenServer 5/UnixWare7/

UnixWare 2.1/SVR4.2/QNX

Configuration: Web console, Telnet Console, or Windows utility

Power Requirements

Power Input:

Rackmount model: 100 to 240 VAC/VDC or ±48 VDC

Desktop model: 12 to 48 VDC

Power Consumption:

NPort 5610-16/8: 141 mA for 100V, 93 mA for 240V

NPort 5610-16/8-48V: 135 mA @ 48V (max.)

NPort 5630-16/8: 152 mA for 100V, 98 mA for 240V

NPort 5650-8/16: 158 mA @ 100 VAC, 102 mA @ 240 VAC

NPort 5650-S-SC-8/16: 164 mA @ 100 VAC, 110 mA @ 240 VAC

NPort 5650-M-SC-8/16: 174 mA @ 100 VAC, 113 mA @ 240 VAC

Mechanical

Material: SECC sheet metal (1 mm)

Dimensions (W × H × D):

190 × 44.5 × 478 mm (including ears)

190 × 44.5 × 440 mm (without ears)

Gross Weight:

NPort 5610-8: 3340 g

NPort 5610-16: 3420 g

NPort 5610-8-48V: 3160 g

NPort 5610-16-48V: 3260 g

NPort 5630-8: 3380 g

NPort 5630-16: 3400 g

NPort 5650-8: 3360 g

NPort 5650-16: 3460 g

NPort 5650-S-SC-8: 3380 g

NPort 5650-S-SC-16: 3440 g

NPort 5650-M-SC-8: 3380 g

NPort 5650-M-SC-16: 3440 g

Environment

Operating Temperature: 0 to 55°C (32 to 131°F), 5 to 95%RH

Storage Temperature: -20 to 70°C (-4 to 158°F), 5 to 95%RH

Regulatory Approvals

EMC: FCC Class A, CE Class A

Safety: UL, CUL, TÜV

Warranty: 5 years

MTBF

NPort 5610-8: 97294 hours

NPort 5610-16: 94928 hours

NPort 5610-8-48V: 96758 hours

NPort 5610-16-48V: 94417 hours

NPort 5630-8: 118405 hours

NPort 5630-16: 91483 hours

NPort 5650-8: 117584 hours

NPort 5650-16: 104767 hours

NPort 5650-S-SC-8: 116914 hours

NPort 5650-S-SC-16: 87528 hours

NPort 5650-M-SC-8: 116914 hours

NPort 5650-M-SC-16: 87528 hours