NPort® 6600 Series

8, 16, and 32-port RS-232/422/485 rackmount terminal servers

- Up to 32 ports for high density environments
- Any Baudrate supported with high precision
- Port buffers for storing serial data when the Ethernet is off-line
- SD slot for expanding port buffer memory
- Slot for network expansion module

The certification logos shown here apply to some or all of the products in this section. Please see the **Specifications** section or Moxa's website for details.

Overview

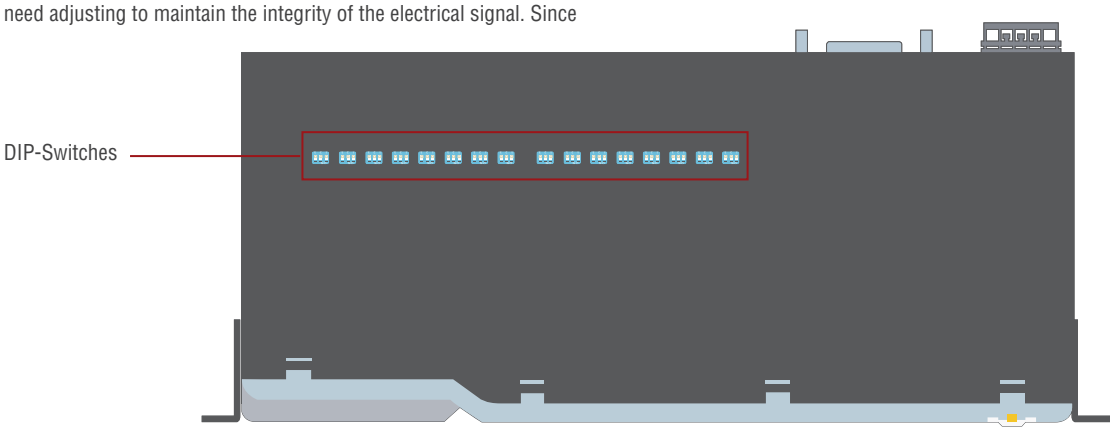
The NPort® 6600 series of secure device servers is the right choice for applications that use large numbers of serial devices packed into a small space. If you're worried about security, you can rest assured with the NPort® 6600, since it supports DES, 3DES, and AES, the three most common standards for data encryption. Serial devices of any type can be connected to the NPort® 6600, and each serial port on the NPort® can be configured independently for RS-232, RS-422, or RS-485 transmission.

LCD Panel Makes Configuration Easy

The NPort® 6600 has a built-in LCD panel for configuration and selecting operation modes. The panel displays the server name, serial number, and IP address, and any of the device server's configuration parameters, such as IP address, netmask, and gateway address, can be updated easily and quickly.

Adjustable Resistor Values for RS-485 Communication

The NPort® 6600 provides adjustable termination, pull high, and pull low resistors for RS-485 communication. In some critical environments, termination resistors may be needed to prevent the reflection of serial signals, and the pull high and pull low resistors may need adjusting to maintain the integrity of the electrical signal. Since no set of resistor values works for every environment, the NPort® 6600 allows manual adjustment of the resistor values for each serial port using built-in DIP switches.



Specifications

Ethernet Interface (built-in)

Number of Ports: 1

Speed: 10/100 Mbps, auto MDI/MDIX

Connector: 8-pin RJ45

Magnetic Isolation Protection: 1.5 KV built-in

Optical Fiber Interface (with network module)

Fiber Port: 100BaseFX, SC connector

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:
Multi-mode: -34 to -30 dBm
Single-mode: -36 to -32 dBm

Serial Interface

Number of Ports: 8, 16, or 32

Serial Standards:
NPort® 6610: RS-232
NPort® 6650: RS-232/422/485

Connector: 8-pin RJ45

ESD Protection: 15 KV for all signals

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

Console Port: Dedicated RS-232 console port on rear panel (8-pin RJ45)

Serial Communication Parameters

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

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

Memory Expansion Slot

Slot Type: SD socket

Software

Network Protocols: ICMP, IP, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, ARP, PPPoE, DDNS

Security Protocols: DES, 3DES, AES, SSH, SSL, HTTPS, RADIUS, PAP, CHAP, TACACS+

Configuration Options: Web Console, Serial Console, Telnet Console, Windows Search Utility

Driver Support: Windows Real COM drivers (for Windows 95, 98, ME, NT, 2000, XP, 2003, Vista, XP x64, 2003 x64, Vista x64), Linux Real TTY driver, Fixed TTY drivers (for 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)

Physical Characteristics

Housing: SECC sheet metal (1 mm), IP30 protection

Weight:
NPort® 6600-8: 3460 g
NPort® 6600-16: 3580 g

Dimensions:
Without ears: 440 x 195 x 44 mm (17.32 x 7.68 x 1.73 in)
With ears: 480 x 195 x 44 mm (18.9 x 7.68 x 1.73 in)

Environmental Limits

Operating Temperature: 0 to 55°C (32 to 131°F)

Operating Humidity: 5 to 95% RH

Storage Temperature: -20 to 70°C (-4 to 158°F)

Surge Protection: 15 KV ESD protection embedded

Power Requirements

Input Voltage:
AC Models: 100 to 240 VAC
DC Models: ±48 VDC (20 to 72 VDC, -20 to -72 VDC)

Power Consumption:
AC Models: 285 mA @ 100 VAC, 190 mA @ 240 VAC
DC Models: 293 mA @ 48 VDC

Power Line Protection: 1 KV burst (EN61000-4-4: EFT/B), 0.5 KV surge (EN61000-4-5)

Regulatory Approvals

EMC: CE (EN55022 Class A, EN55024), FCC Part 15 Subpart B Class A

Safety: UL (UL60950-1), TÜV (EN60950-1)

EN61000-4-2 (ESD): 4 KV contact

EN61000-4-4 (EFT): 1 KV power

EN61000-4-5 (Surge): 2 KV power

Reliability

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

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

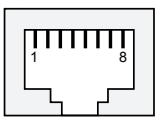
Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Pin Assignment

8-pin RJ45 connector



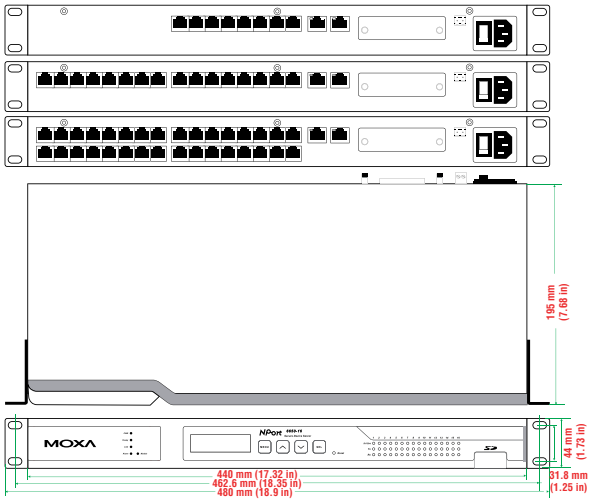
NPort® 6610

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® 6650

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)	---	---

Dimensions



Ordering Information

Available Models

NPort® 6610-8: 8-port RS-232 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6610-8-48V: 8-port RS-232 to Ethernet secure terminal server, ±48 VDC power input
NPort® 6610-16: 16-port RS-232 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6610-16-48V: 16-port RS-232 to Ethernet secure terminal server, ±48 VDC power input
NPort® 6610-32: 32-port RS-232 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6610-32-48V: 32-port RS-232 to Ethernet secure terminal server, ±48 VDC power input
NPort® 6650-8: 8-port RS-232/422/485 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6650-8-48V: 8-port RS-232/422/485 to Ethernet secure terminal server, ±48 VDC power input
NPort® 6650-16: 16-port RS-232/422/485 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6650-16-48V: 16-port RS-232/422/485 to Ethernet secure terminal server, ±48 VDC power input
NPort® 6650-32: 32-port RS-232/422/485 to Ethernet secure terminal server, 100 to 240 VAC power input
NPort® 6650-32-48V: 32-port RS-232/422/485 to Ethernet secure terminal server, ±48 VDC power input

Package Checklist

- NPort® 6600 device server
- CBL-RJ45M9-150: 8-pin RJ45 to DB9 male connection cable, 150 cm
- Power Cord (AC models only)
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card

Optional Accessories (can be purchased separately)

Serial Cables and Adaptors: Please see "Appendix A: Accessories" for details

Expansion Modules:

Module model name			Use with the following NPort® models					
			6150	6250	6450	6610-8 6650-8	6610-16 6650-16	6610-32 6650-32
NM-TX01		1 10/100BaseTX port	---	---	√	√	√	√
NM-TX02		2 10/100BaseTX port	---	---	√	√	√	√
NM-FX01-S-SC		1 100BaseFX port, single mode, SC connector	---	---	√	√	√	√
NM-FX01-M-SC		1 100BaseFX port, multi mode, SC connector	---	---	√	√	√	√
NM-FX02-S-SC		2 100BaseFX ports, single mode, SC connector	---	---	√	√	√	√
NM-FX02-M-SC		2 100BaseFX ports, multi mode, SC connector	---	---	√	√	√	√
NM-GPRS/GSM		1 GPRS/GSM modem module	---	---	√	√	√	√
NM-Modem		1 PSTN modem port with RJ11 connector	---	---	√	√	√	√

Note: Expansion modules can be purchased separately.