NPort 6600 Series

8, 16, and 32-port RS-232/422/485 Rackmount Terminal Servers

Features

> Up to 32 ports for high density environments
> SSL support for secure communication
> Secure remote management and configuration with SSH or SSL
> Powerful DES, 3DES, and AES hardware encryption engine
> Any baudrate allowed
> 10/100BaseTx Ethernet port supporting 802.3af Power Over Ethernet (POE) - under development
> Port buffers to hold serial data if Ethernet fails
> SD slot for optional expansion of port buffers
> Slot for network expansion module

Overview

The NPort 6600 is designed to connect higher densities of serial devices to the Ethernet. Models are available with 8, 16, or 32 ports. When establishing network connections to a larger number of serial devices or equipment console ports, greater security may be needed for TCP data. The NPort 6600 supports secure Ethernet communication between computers and serial devices with DES, 3DES, and AES, three of the most popular standards for data encryption.

Easy Installation with LCD Control Panel

The NPort 6600 has a built-in LCD control panel that allows data input, configuration, and mode selection. The panel displays the server name, serial number, and IP address. Parameters such as IP address, netmask, and gateway, can be quickly and easily modified.
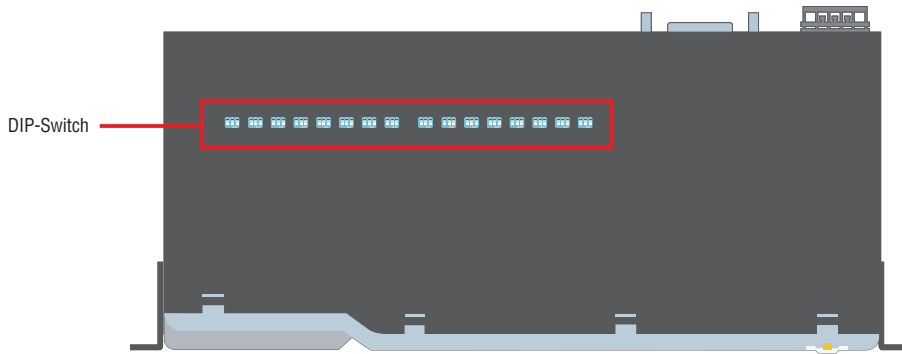
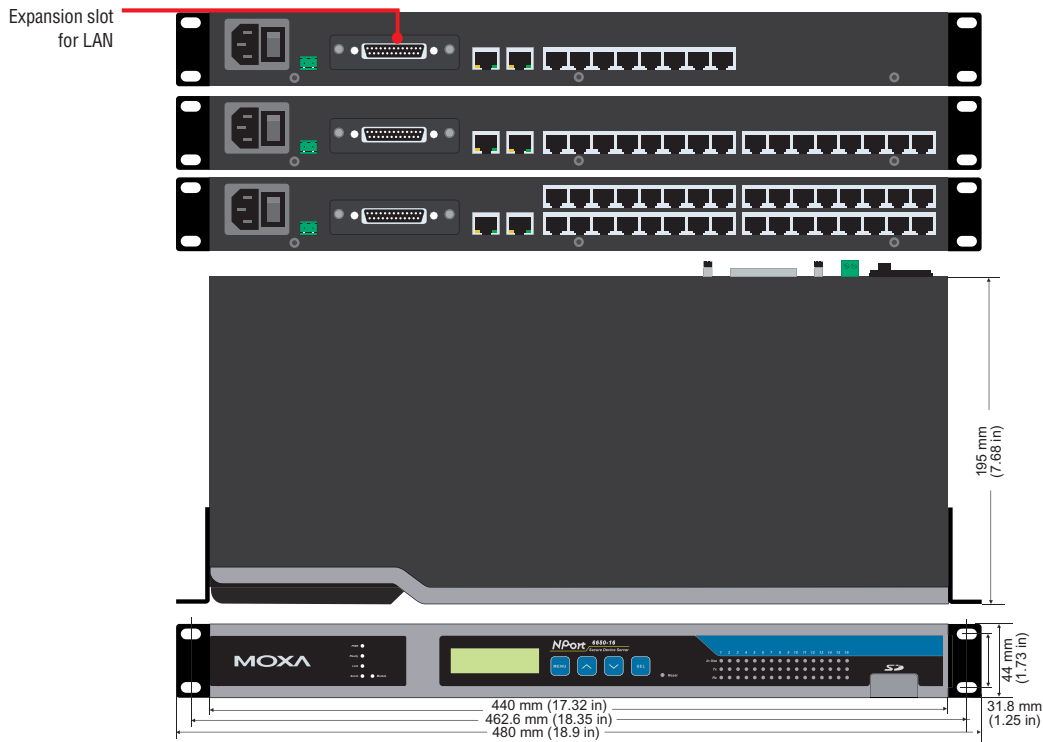## Adjustable Resistor Values for RS-485

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. Pull high and pull low resistors may also need adjustment so the electrical signal is not corrupted. 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.
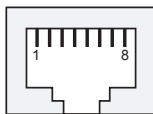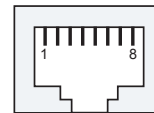
DIP Switches for Adjustment of Resistors

DIP-Switch

Dimensions (unit = mm)

Expansion slot for LAN

195 mm (7.68 in)

440 mm (17.32 in)
462.6 mm (18.35 in)
480 mm (18.9 in)

44 mm (1.73 in)

31.8 mm (1.25 in)

NPort 6610 RJ45 RS-232 port

1   8

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 RJ45 RS-232/422/485 port

1   8

Pin	RS-232	RS-422/485 (4W)	RS-232
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)	---	---

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Secure Terminal Servers/Terminal Servers

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: Ordering Information

NPort 6610-8: 8-port RS-232 to Ethernet Secure Device Server, 100-240 VAC input
NPort 6610-8-48V: 8-port RS-232 to Ethernet Secure Device Server, ±48 VDC input
NPort 6610-16: 16-port RS-232 to Ethernet Secure Device Server, 100-240 VAC input
NPort 6610-16-48V: 16-port RS-232 to Ethernet Secure Device Server, ±48 VDC input
NPort 6610-32: 32-port RS-232 to Ethernet Secure Device Server, 100-240 VAC input
NPort 6610-32-48V: 32-port RS-232 to Ethernet Secure Device Server, ±48 VDC input
NPort 6650-8: 8-port RS-232/422/485 to Ethernet Secure Terminal Server, 100-240 VAC input
NPort 6650-8-48V: 8-port RS-232/422/485 to Ethernet Secure Terminal Server, ±48 VDC input
NPort 6650-16: 16-port RS-232/422/485 to Ethernet Secure Terminal Server, 100-240 VAC input
NPort 6650-16-48V: 16-port RS-232/422/485 to Ethernet Secure Terminal Server, ±48 VDC input
NPort 6650-32: 32-port RS-232/422/485 to Ethernet Secure Terminal Server, 100-240 VAC input
NPort 6650-32-48V: 32-port RS-232/422/485 to Ethernet Secure Terminal Server, ±48 VDC input

Package Checklist

- 1 NPort 6600 Secure Device Server
- Quick Installation Guide
- Document and Software CD ROM
- Power Cord (AC model only)
- CBL-RJ45M9-150 x 1

Optional Accessories

Power Cord: See page 12-10
Serial Cable & Serial Adaptor: See page 12-4
Network Expansion Module: See page 12-11

Expansion Module		6150	6250	6450	6610-8 6650-8	6610-16 6650-16	6610-32 6650-32
NM-TX01	1 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	---	---	√	√	√	√

: Specifications

LAN

Ethernet: 10/100 Mbps, RJ45

Protection: Built-in 1.5 KV magnetic isolation

Optical Fiber (Network Module)

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

Interface: NPort 6610: RS-232, RJ45 (8-pin)
 NPort 6650: RS-232/422/485, RJ45 (8-pin)
No. of Ports: NPort 6610: 8 (NPort 6610-8), 16 (NPort 6610-16), 32 (NPort 6610-32)
 NPort 6650: 8 (NPort 6650-8), 16 (NPort 6650-16), 32 (NPort 6650-32)
Signals: NPort 6610: RS-232: TxD, RxD, RTS, CTS, DTR, DSR, GND, DCD
 NPort 6650: RS-232: TxD, RxD, RTS, CTS, DTR, DSR, GND, DCD
 RS-422: Tx+, Tx-, Rx+, Rx-, GND
 RS-485 (2-wire): Data+, Data-, GND
 RS-485 (4-wire): Tx+, Tx-, Rx+, Rx-, GND

RS-485 Data Direction Control:

Patented Automatic Data Direction Control (ADDC™)

Serial Line protection: 15 KV EDS for all signal

Power line protection: 1 KV Burst (EFT), EN6200-4-4

0.5 KV Surge, EN61000-4-5

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, DTR/DSR

Speed: 50 bps to 921.6 Kbps

Console Port: RS-232 console × 1

Storage: One SD slot

Software Features

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

Utilities: Windows utility for Windows 98/ME/2000/XP/2003/Vista/XP x64/2003 x64/Vista x64

Security Protocols: DES/3DES/AES

OS Driver Support: Windows 95/98/ME/NT/2000/XP/2003/Vista/XP x64/2003 x64/Vista x64 COM driver, Linux Real TTY driver, Unix Fixed TYT driver

Configuration: Web console, serial console, Telnet console

Power Requirements

Power input:
100 to 240 VAC, ±48 VDC (20 to 72 VDC, -20 to -72 VDC)

Power Consumption:
NPort 6610-8/16/32:   285mA @ 100VAC
   190mA @ 240VAC
NPort 6610-8/16/32-48:   293mA @ 48VDC
NPort 6650-8/16/32:   285mA @ 100VAC
   190mA @ 240VAC
NPort 6650-8/16/32-48:   293mA @ 48VDC

Mechanical Specifications

Material: SECC sheet metal (1 mm)

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

Environmental

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, TUV

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