

NPort 5650 Series

8/16-port RS-232/422/485 Rackmount Serial Device Servers

NPort 5650-8



NPort 5650-16

Features

- Optical fiber Ethernet connections for some models
- 8 or 16 RS-232/422/485 ports
- Easy-to-use LCM (Liquid Crystal Module) interface for IP address configuration
- Standard 19-inch rack-mountable
- Auto-detecting 10/100 Mbps Ethernet
- Surge protection for all serial signals (15 KV ESD)
- TCP Server, TCP Client, UDP, and Real COM operation modes
- Web and Telnet consoles supported
- SNMP MIB-II for network management



Optical Fiber Ethernet Connection

The NPort 5650 series is the first series of device servers that includes both copper and optical fiber models for the

Ethernet connection. The fiber models come with a single-mode or multi-mode connection.

Connect up to 16 RS-232/422/485 Serial Devices to the Internet

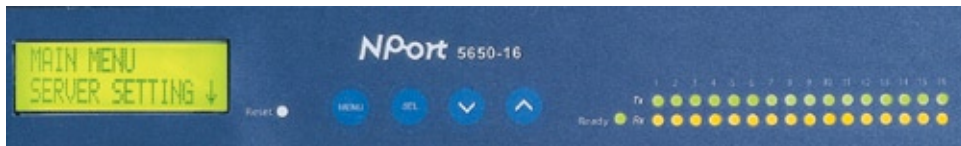
The NPort 5650 provides a convenient and transparent way to set up serial to Ethernet connections that protect your current hardware investment, but also leave room for future network expansion. Perform some simple configuration tasks, and you'll be ready to network your serial devices in

no time. The NPort 5650 can transparently transmit data bi-directionally between the serial and Ethernet interfaces. You can either control all of your serial devices from one central location, or distribute the management hosts around the network.

Useful LED Indicators

The system LED, serial Tx/Rx LEDs, and Ethernet LED on the NPort help field engineers analyze field problems, and provide a simple way to ease monitoring tasks. NPort 5650's LEDs

not only indicate current system and network status, but also assist field engineers in monitoring the status of attached serial devices.



Real COM/TTY Port

After installing the real COM/TTY driver that comes with the NPort 5650 series, the serial ports on NPort 5600 are recognized as Real COM ports by the Windows operating

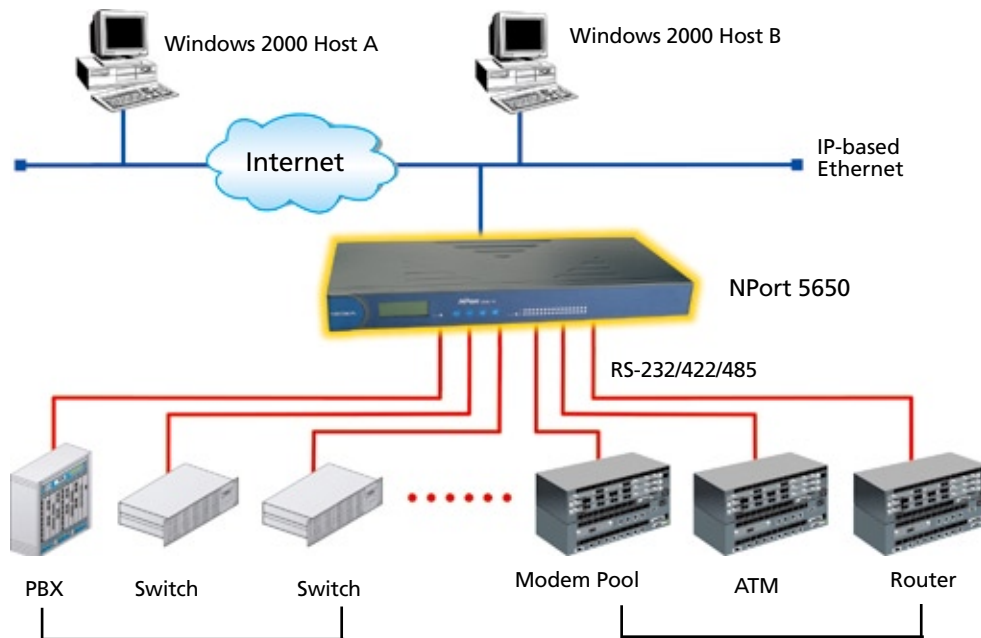
system, or real tty ports by Linux. NPort provides both the basic transmit/receive data functions, as well as RTS, CTS, DTR, DSR, and DCD control signals.

Typical Applications

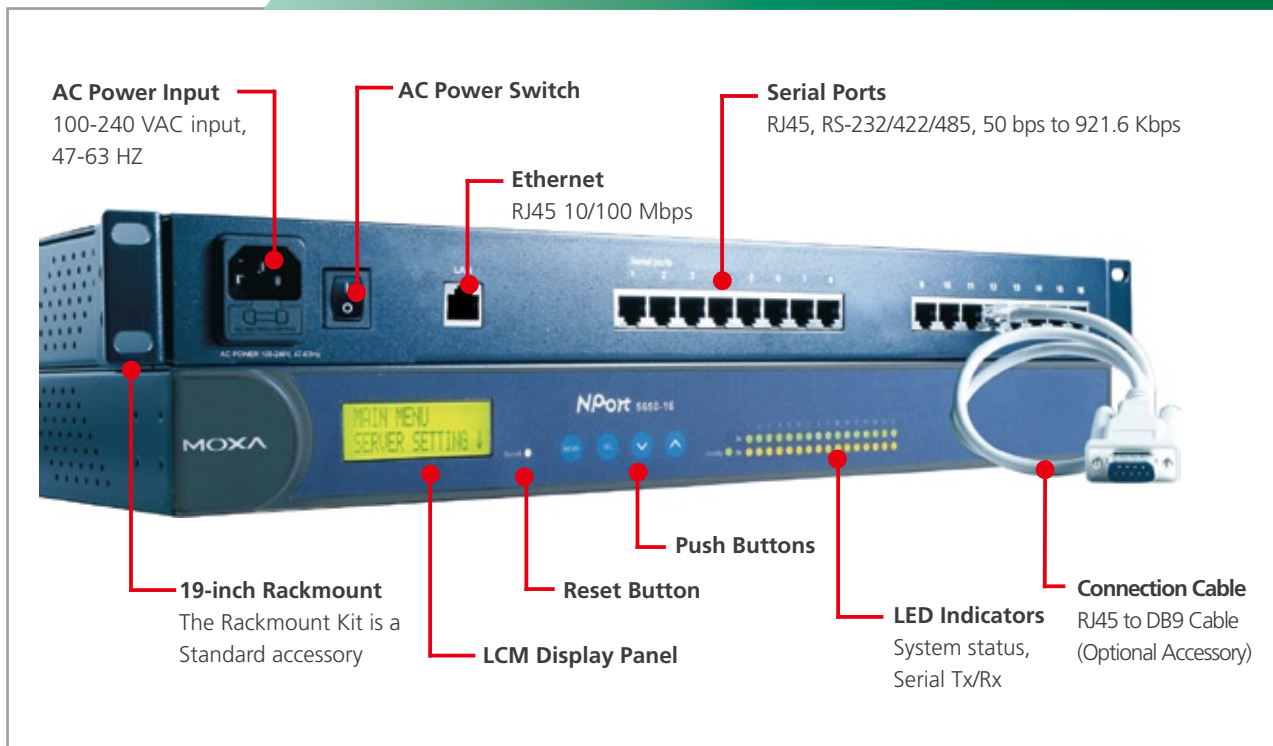
1 NPort 5650 can be shared by several different host computers

NPort 5600 series device servers can connect up to 4 serial devices with only one IP address to establish a connection for automatic or remote data acquisition. By specifying the IP address and the TCP port number, a host computer can

access different serial devices over the Internet. For example, you could connect to 192.168.10.2:4001 to access data from NPort 5650's first serial port.



NPort 5650 Series Appearance



Ordering Information

NPort 5650-8: 8-port RS-232/422/485 to Ethernet Device Server, 100 to 240 VAC power input

NPort 5650-16: 16-port RS-232/422/485 to Ethernet Device Server, 100 to 240 VAC power input

NPort 5650-8-M-SC: 8-port RS-232/422/485 Serial Device Server, 10/100BaseF(X), Multi Mode Fiber (SC Connector)

NPort 5650-16-M-SC: 16-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 5650-16-S-SC: 16-port RS-232/422/485 Serial Device Server, 10/100BaseF(X), Single Mode Fiber (SC Connector)

Above items include

- 8/16-port serial device server x 1
- Quick Installation Guide
- NPort Document and Software CD-ROM
- Power Cord

Optional Accessories

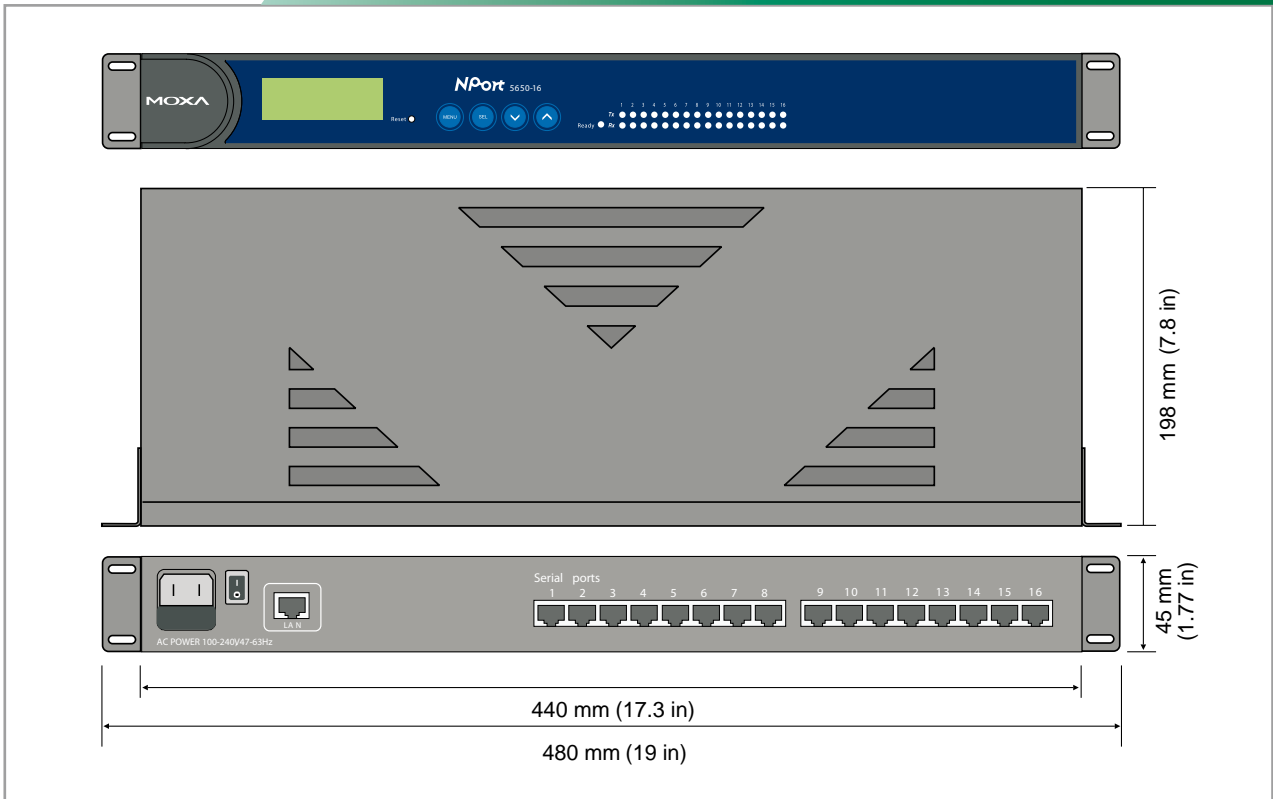
CBL-RJ45M9-150: RJ45 (8-pin) to male DB9 cable, 150 cm

CBL-RJ45F9-150: RJ45 (8-pin) to female DB9 cable, 150 cm

CBL-RJ45M25-150: RJ45 (8-pin) to male DB25 cable, 150 cm

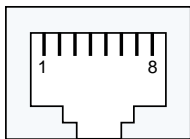
CBL-RJ45F25-150: RJ45 (8-pin) to female DB25 cable, 150 cm

Dimensions



Pin Assignment

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)	---	---

Specifications

LAN

Ethernet: 10/100 Mbps, RJ45, Auto MDI/MDIX

Protection: Built-in 1.5 KV magnetic isolation

Serial

Interface: RS-232/422/485, 8-pin RJ45

Signals:

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 ESD for all signals

Power Line protection: 1 KV Burst (EFT), EN61000-4-4
0.5 KV Surge, EN61000-4-5

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, -20 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)

Built-in HMI LCM display with four push buttons

Built-in Buzzer

Built-in Real Time Clock

Built-in Watch Dog Timer

Serial Communication Parameters:

Parity: None, Even, Odd, Space, Mark

Data bits: 5, 6, 7, 8

Stop bits: 1, 1.5, 2

Flow control: RTS/CTS, DTR/DSR (NPort 5610 only), XON/XOFF

Speed: 50 bps to 921.6 Kbps Software Features

Protocols: ICMP, IP, TCP, UDP, DHCP, BootP, Telnet, DNS, SNMP, HTTP, SMTP, SNTP

Utilities: NPort Administration Suite for Windows 95/98/ME/NT/2000/XP/2003

OS Driver Support: Windows 95/98/ME/NT/2000/XP/2003/XP x64/2003 x64 COM driver, Linux real TTY driver, SCO Unix, SCO OpenServer 5, UnixWare 7, UnixWare 2.1.x, SVR4.2/QNX

Configuration: Web/Telnet console, or Windows utility

Power Requirements

Power Input: 110 to 220 VAC/VDC input, 47 to 63 Hz

Power Consumption:

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

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

Mechanical Specifications

Material: SECC sheet metal (1 mm)

Environmental

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

Storage Temperature: -20 to 75°C (-4 to 167°F), 5 to 95% RH

Regulatory Approvals

EMC:

CE: EN55022 Class A/EN 55024

FCC: FCC Part 15 Subpart B Class A

Safety:

UL: UL60950-1

TÜV: EN60950-1

Warranty: 5 years