NPort 6150/6250 Series
Quick Installation Guide

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Overview

The NPort 6150/6250 series secure serial device servers provide reliable serial-to-Ethernet connectivity for a wide range of serial devices. The NPort 6150/6250 support TCP Server, TCP Client, UDP, and Pair-Connection operation modes to ensure the compatibility of network software. In addition, the NPort 6150/6250 also support Secure TCP Server, Secure TCP Client, Secure Pair-Connection, and Secure Real COM modes for security critical applications such as banking, telecom, access control, and remote site management.

Package Checklist

Before installing a NPort 6150/6250 secure device server, verify that the package contains the following items:

- 1 NPort 6150 or NPort 6250
- Power adapter (does not apply to -T models)
- 2 wallmount ears
- Documentation and software CD
- Quick installation guide (this guide)
- Warranty card

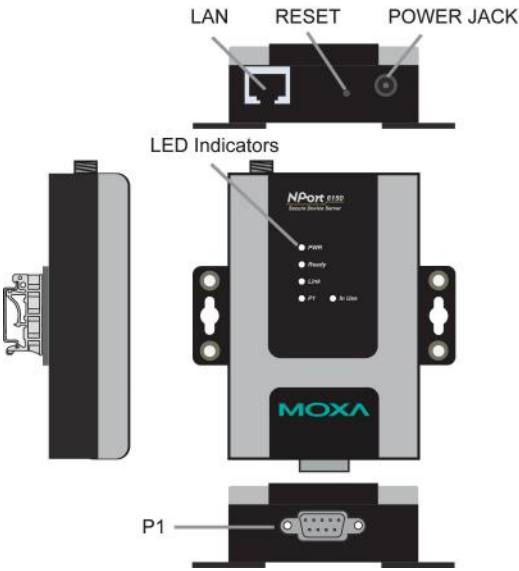
Optional Accessories

- DK-35A: DIN-rail mounting kit (35 mm)
- DIN-rail power supply
- CBL-RJ45M9-150: 8-pin RJ45 to male DB9 cable
- CBL-RJ45M25-150: 8-pin RJ45 to male DB25 cable

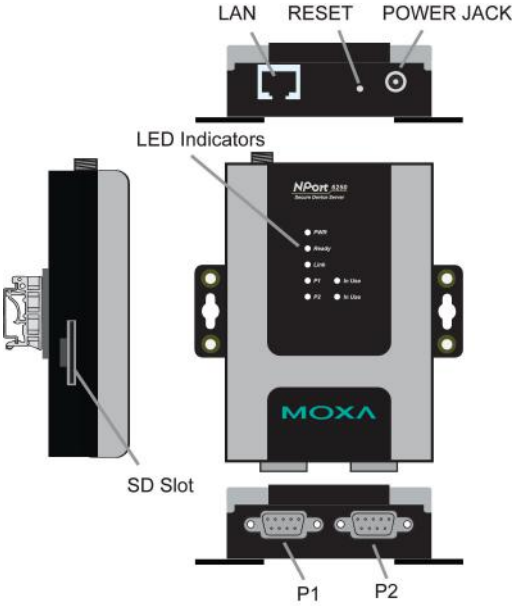
NOTE: *Please notify your sales representative if any of the above items are missing or damaged.*

Hardware Introduction

NPort 6150



NPort 6250



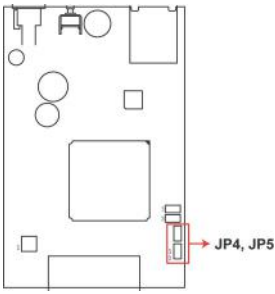
Reset Button—Press the Reset Button continuously for 5 sec to load factory defaults. Use a pointed object, such as a straightened paper clip or toothpick, to press the reset button. This will cause the Ready LED to blink on and off. The factory defaults will be loaded once the Ready LED stops blinking (after about 5 seconds). At this point, you should release the reset button.

LED Indicators

LED Name	LED Color	LED Function	
PWR	Red	Power is being supplied to the power input.	
Ready	Red	Steady on	Power is on and the NPort is booting up.
		Blinking	Indicates an IP conflict, or, the DHCP or BOOTP server did not respond properly or a relay output occurred. Check the relay output first. If after resolving the relay output the RDY LED is still blinking, then there is an IP conflict, or the DHCP or BOOTP server did not respond properly.
	Green	Steady on	Power is on and the NPort is functioning normally.
		Blinking	The device server has been located by the Administrator's Location function.
	Off	Power is off, or power error condition exists.	

LED Name	LED Color	LED Function
Link	Orange	10 Mbps Ethernet connection
	Green	100 Mbps Ethernet connection
	Off	Ethernet cable is disconnected, or has a short.
P1, P2	Orange	Serial port is receiving data.
	Green	Serial port is transmitting data.
	Off	No data is being transmitted or received through the serial port.
P1, P2 in-use LED	Green	Serial port was opened by server side software.
	Off	Serial port has not been opened by server side software.

Adjustable pull high/low resistor for RS-422/485 (150 KΩ or 1 KΩ)



Jumpers are used to set the pull high/low resistors. The default is 150 kΩ. Short the jumpers to set this value to 1 kΩ. Do not use the 1 kΩ setting with RS-232 mode, since doing so will degrade the RS-232 signals and shorten the communication distance.

Hardware Installation Procedure

STEP 1: Connect the 12-48 VDC power adaptor to the NPort 6150 and then plug the power adaptor into a DC outlet.

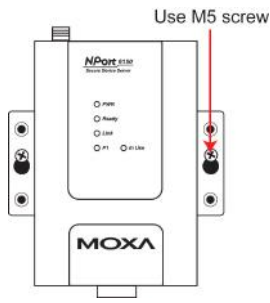
STEP 2: For first-time configuration, use a cross-over Ethernet cable to connect the NPort 6150 directly to your computer's Ethernet cable. For connecting to a network, use a standard straight-through Ethernet cable to connect to a hub or switch.

STEP 3: Connect the NPort 6150's serial port to a serial device.

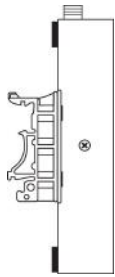
Placement Options

The NPort 6150/6250 can be placed flat on a desktop or other horizontal surface. In addition, you may use the DIN-rail or wallmount options, as illustrated below.

Wallmount



Din Rail



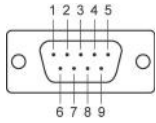
Software Installation Information

The Documentation and software CD contains the user's manual, NPort Search Utility, and the PComm Lite Suite. Insert the CD into your computer's CD-ROM drive and follow the on-screen instructions. Please refer to the user's manual for additional details on using the NPort Search Utility and PComm Lite.

Pin Assignments and Cable Wiring

RS-232/422/485 Pin Assignment (male DB9)

Pin	RS-232	RS-422 4-wire RS-485	2-wire RS-485
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	–	–	–



Two serial cables for connecting the NPort 6150 to a serial device can be purchased separately. The wiring diagrams for the two cables are shown below.

Specifications

LAN	
Ethernet	NPort 6150/6250: 10/100 Mbps, RJ45 NPort 6250-S-SC: Single-mode fiber NPort 6250-M-SC: Multi-mode fiber
Protection	Built-in 1.5 kV magnetic isolation
Serial	
No. of ports	NPort 6150: 1 NPort 6250: 2
Interface	RS-232/422/485 (male DB9)
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 (supports nonstandard baudrates)
Console Port	RS-232 (please see the User's Manual for detailed operating instructions)
Memory	One SD socket
Software Features	
Protocols	ICMP, IPv4/v6, TCP, UDP, DHCP, BOOTP, Telnet, DNS, SNMP, HTTP, SMTP, HTTPS, SSL, SSH, PPPoE, RFC2217
Utilities	Device Search Utility for Windows
Security Protocols	SSLv3, TLSv1.0/1.1/1.2

OS Driver Support	Windows Real COM Drivers: Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10 (x86/x64), Windows 2008 R2/2012/2012 R2 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded Fixed TTY Drivers: SCO Unix, SCO OpenServer, UnixWare 7, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X Linux Real TTY Drivers: Linux 2.4.x, 2.6.x, 3.x Management: SNMP MIB-II IP Routing: Static, RIP-I, RIP-II
Configuration	Web Console, Serial/Telnet Console, Windows utility
Power Requirements	
Power input	12 to 48 VDC
Mechanical Specifications	
Material	Aluminum (1 mm)
Environmental Limits	
Operating Temperature	Standard models: NPort 6150/6250 series: 0 to 55°C (32 to 131°F) Wide temp. models: NPort 6150-T/6250-T series: -40 to 75°C (-40 to 167°F)
Storage Temperature	Standard models: NPort 6150/6250 series: 0 to 55°C (32 to 131°F) Wide temp. models: NPort 6150-T/6250-T series: -40 to 75°C (-40 to 167°F) , 5 to 95% RH
Regulatory Approvals	
EMC	FCC Class A, CE Class A
Safety	UL, CUL, TÜV