

NPort® 6250 Series

2-port RS-232/422/485 secure terminal servers



- > Simple solution for connecting serial devices to a network
- > Secure operation modes for Real COM, TCP Server, TCP Client, Pair Connection, Terminal, and Reverse Terminal
- > Any Baudrate supported with high precision
- > Choice of network medium: 10/100BaseTX or 100BaseFX
- > Automatic RS-485 data direction control with Moxa's patented ADDC®
- > Port buffers for storing serial data when the Ethernet is off-line
- > SD slot for expanding port buffer memory

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 2-port NPort® 6250 device servers use the SSL and SSH protocols to transmit encrypted serial data over Ethernet. Models are available for connecting to a 10/100BaseTX copper Ethernet or

100BaseTX fiber network. Both single-mode and multi-mode fiber are supported.

No Data Loss if Ethernet Connection Fails

The NPort® 6250 device servers help guarantee reliability by providing users with secure serial-to-Ethernet data transmission and a customer-oriented hardware design. If the Ethernet connection fails, the NPort® 6250 will queue all serial data in its internal 64 KB port

buffer. When the Ethernet connection is re-established, the NPort® 6250 will immediately release all data in the buffer in the order that it was received. Users can increase the port buffer size by installing an SD card.

Specifications

Ethernet Interface (NPort® 6250)

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 (NPort® 6250-S-SC/6250-M-SC)
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: 2
Serial Standards: RS-232/422/485
Connector: DB9 male
ESD Protection: 15 KV for all signals
RS-485 Data Direction Control: ADDC® (Automatic Data Direction Control)

Console Port: Serial port 1 doubles as RS-232 console port

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: Tx+, Tx-, Rx+, Rx-, 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, RIP
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: Aluminum (1 mm)
Weight: 730 g
Dimensions:
 Without ears: 77 x 111 x 28 mm (3.30 x 4.37 x 1.1 in)
 With ears: 89 x 111 x 28 mm (3.50 x 4.37 x 1.1 in)

Environmental Limits

Operating Temperature: 0 to 55°C (32 to 131°F)
Operating Humidity: 5 to 95% RH
Storage Temperature: -20 to 85°C (-4 to 185°F)
Surge Protection: 15 KV ESD protection embedded

Power Requirements

Input Voltage: 12 to 48 VDC
Power Consumption: 430 mA @ 12 V (max.)
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

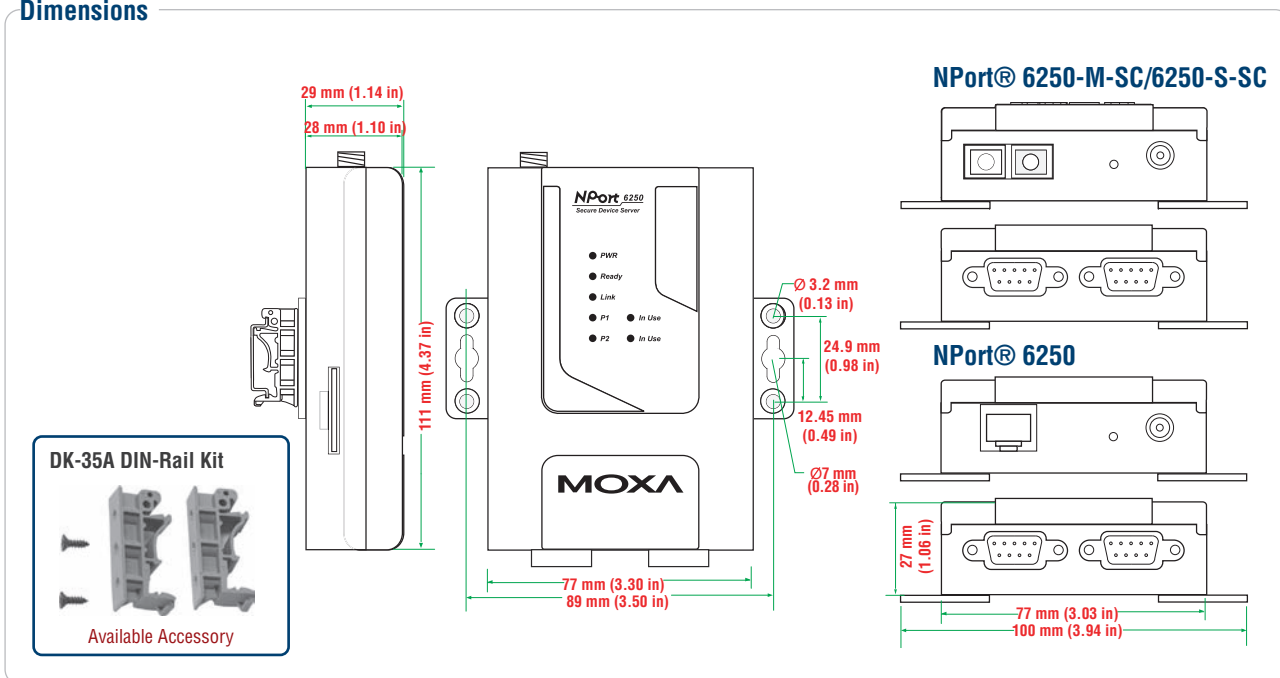
Reliability

Alert Tools: Built-in buzzer and RTC (real-time clock)
Automatic Reboot Trigger: Built-in WDT (watchdog timer)
MTBF (meantime between failures):
 NPort® 6250: 226128 hrs
 NPort® 6250-M-SC: 225762 hrs
 NPort® 6250-S-SC: 225762 hrs

Warranty

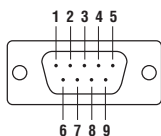
Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions



Pin Assignment

DB9 male connector



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	-	-

Ordering Information

Available Models

NPort® 6250: 2-port secure device server, RS-232/422/485 to Ethernet
NPort® 6250-M-SC: 2-port secure device server, RS-232/422/485 to multi-mode fiber (SC connector)
NPort® 6250-S-SC: 2-port secure device server, RS-232/422/485 to single-mode fiber (SC connector)

Optional Accessories (can be purchased separately)

DK-35A: Mounting Kit for 35-mm DIN-Rail
NP21101: DB25 male to DB9 female RS-232 cable, 30 cm

Package Checklist

- NPort® 6250 device server
- Power Adaptor
- Document and Software CD
- Quick Installation Guide (printed)
- Warranty Card