

NPort 6100/6200 系列

1/2 埠 RS-232/422/485 安全終端伺服器



特色與優點

- 安全的 Real COM、TCP Server、TCP Client、Pair Connection、Terminal 和 Reverse Terminal 作業模式
- 支援任何傳輸率，具備高精確度
- NPort 6250：網路媒介選擇：10/100BaseT (X) 或 100BaseFX
- 利用 HTTPS 和 SSH 強化遠端設定
- 乙太網路離線時，使用連接埠緩衝區儲存串列資料
- 支援 IPv6
- 在"Command-by-Command" 模式下支援一般性串列指令
- 符合 IEC 62443 的資安防護功能

認證



簡介

NPort® 6000 裝置使用 TLS 與 SSH 通訊協定 加密串列資料，並透過乙太網路傳送。NPort® 6000 三合一串列埠支援 RS-232、RS-422 與 RS-485 等介面，且可由便利存取的設定功能表來選取以上介面。NPort® 6000 2 埠裝置提供可連接 10/100BaseT(X) 銅線乙太網路或 100BaseT(X) 光纖網路的機型。同時支援單模光纖及 多模光纖。

安全數據傳輸

對於許多應用程式，將串列裝置連接至網路，考量的重點就是保護資料傳輸的安全性。為了解決這個問題，NPort® 6000 支援 TLS 和 SSH 通訊協定，這些通訊協定會在透過網路傳輸資料之前先將資料進行加密。使用 NPort® 6000，使用者就可放心在私有 或公用網路上安全地傳送串列資料。

乙太網路連線失敗時不會遺失數據

NPort® 6250 以客戶為導向的硬體設計確保機體可靠穩定，並可提供使用者安全的串列轉乙太網路資料傳輸。如果乙太網路中斷，NPort® 6250 會將所有串列資料放入佇列，儲存至其內建的 64 KB 連接埠緩衝區中。當乙太網路重新建立連線後，NPort® 6250 會馬上依照收到資料的順序，將緩衝區內的所有資料釋出。使用者還可安裝 SD 記憶卡來擴充連接埠緩衝區的大小。

規格

Memory

SD Slot	NPort 6200 Models: Up to 32 GB (SD 2.0 compatible)
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Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	NPort 6150/6150-T: 1 NPort 6250/6250-T: 1 Auto MDI/MDI-X connection
100BaseFX Ports (multi-mode SC connector)	NPort 6250-M-SC Models: 1
100BaseFX Ports (single-mode SC connector)	NPort 6250-S-SC Models: 1

Magnetic Isolation Protection	1.5 kV (built-in)				
Optical Fiber			100BaseFX		
			Multi-Mode		Single-Mode
			OM1	50/125 μm	G.652
	800 MHz x km				
	Typical Distance		4 km	5 km	40 km
	Wavelength	Typical (nm)	1300		1310
		TX Range (nm)	1260 to 1360		1280 to 1340
		RX Range (nm)	1100 to 1600		1100 to 1600
	Optical Power	TX Range (dBm)	-10 to -20		0 to -5
		RX Range (dBm)	-3 to -32		-3 to -34
		Link Budget (dB)	12		29
		Dispersion Penalty (dB)	3		1
	Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power. Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).				

Ethernet Software Features

Configuration Options	Web Console (HTTP/HTTPS) Windows Utility Device Search Utility (DSU) MCC Tool Serial Console Telnet/SSH Console
Management	ARP BOOTP DHCP Client DNS HTTP ICMP IPv4/IPv6 LLDP PPPOE SMTP SNMPv1/v2c/v3 SNTP TCP/IP Telnet UDP
Windows Real COM Drivers	Windows 11/10/8.1/8/7/Vista/XP/ME/98/95 Windows Server 2022/2019/2016/2012 R2/2012/2008 R2/2008/2003 Windows Embedded CE 6.0/5.0, Windows XP Embedded
Linux Real TTY Drivers	Kernel versions 6.x, 5.x, 4.x, 3.x, 2.6.x, and 2.4.x
Fixed TTY Drivers	macOS Versions: 11.x, 10.12 to 10.15 SCO UNIX, SCO OpenServer, UnixWare 7, QNX 4.25, QNX 6.x, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X
Arm®-based Platform Support	Linux Kernel 5.x/4.x
Virtual Machine	VMWare ESXi (Windows 11/10) VMware Fusion (Windows on macOS 10.12 to 11.x) Parallels Desktop (Windows on macOS 10.12 to 11.x)

Android API	Android 3.1.x and later
Time Management	SNTP Client
MIB	MIB-II
Unicast Routing	RIPv1/V2 Static Route

Security Functions

Authentication	Local database RADIUS TACACS+
Encryption	HTTPS AES-128 AES-256 HMAC RSA-1024 SHA-1 SHA-256 SHA-384
Security Protocols	HTTPS (TLS 1.2) SNMPv3 SSHv2

Serial Interface

Connector	DB9 male
No. of Ports	NPort 6150 Models: 1 NPort 6250 Models: 2
Serial Standards	RS-232 RS-422 RS-485
Secure Operation Modes	Reverse SSH Secure Pair Connection Secure Real COM Secure TCP Client Secure TCP Server SSH
Standard Operation Modes	Disabled Ethernet Modem Pair Connection PPP Printer Real COM Reverse Telnet RFC2217 TCP Client TCP Server Terminal UDP
Baudrate	50 bps to 921.6 kbps (supports non-standard baudrates)
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Flow Control	RTS/CTS DTR/DSR XON/XOFF
Parity	None, Even, Odd, Space, Mark

Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	Automatic Data Direction Control (ADDC)
Terminator for RS-485	120 ohms

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

Power Parameters

Input Current	NPort 6150/6150-T : 12-48 Vdc, 285 mA NPort 6250/6250-T: 12-48 Vdc, 430 mA NPort 6250-M-SC/6250-M-SC-T: 12-48 Vdc, 430 mA NPort 6250-S-SC/6250-S-SC-T: 12-48 Vdc, 430 mA
Input Voltage	12 to 48 VDC

Reliability

Automatic Reboot Trigger	Built-in WDT
Alert Tools	Built-in buzzer and RTC (real-time clock)

Physical Characteristics

Housing	Metal
Dimensions (with ears)	NPort 6150 Models: 90 x 100.4 x 29 mm (3.54 x 3.95 x 1.1 in) NPort 6250 Models: 101 x 111 x 29 mm (3.98 x 4.37 x 1.1 in)
Dimensions (without ears)	NPort 6150 Models: 67 x 100.4 x 29 mm (2.64 x 3.95 x 1.1 in) NPort 6250 Models: 77 x 111 x 29 mm (3.30 x 4.37 x 1.1 in)
Weight	NPort 6150 Models: 190 g (0.42 lb) NPort 6250 Models: 240 g (0.53 lb)
Installation	Desktop DIN-rail mounting (with optional kit) Wall mounting

Environmental Limits

Operating Temperature	Standard Models: 0 to 55°C (32 to 131°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

EMC	EN 55032/35
EMI	CISPR 32, FCC Part 15B Class A
EMS	IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 1 kV(AC), 0.5 kV(DC); Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 1 kV(AC), 0.5 kV(DC); Signal: 1 kV IEC 61000-4-6 CS: 3 V IEC 61000-4-8 PFMF IEC 61000-4-11

Traffic Control	NEMA TS2
Vibration	IEC 60068-2-6
Freefall	IEC 60068-2-34
Safety	UL 60950-1 UL 62368-1

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	NPort 6150/6150-T: 1,934,102 hrs NPort 6250/6250-T: 1,606,182 hrs NPort 6250-M-SC/6250-M-SC-T: 1,526,091 hrs NPort 6250-S-SC/6250-S-SC-T: 1,526,091 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

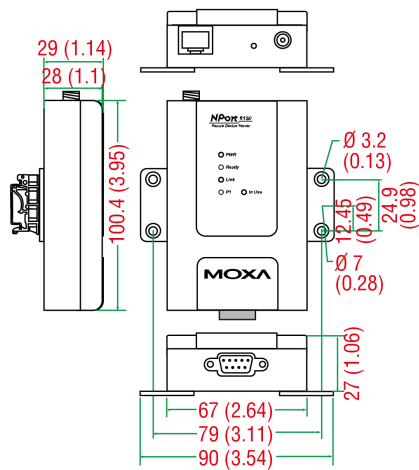
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

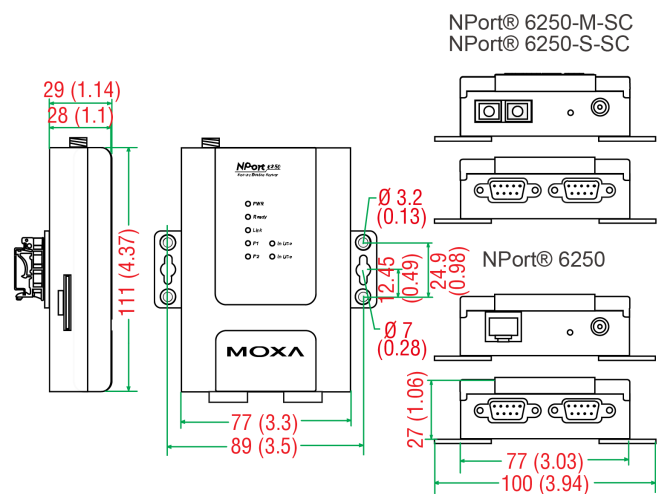
Device	1 x NPort 6100/6200 Series terminal server
Power Supply	1 x power adapter, suitable for your region (except for -T models)
Documentation	1 x quick installation guide 1 x warranty card

尺寸

單位：公釐（英吋）



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訂購資訊

Model Name	Ethernet Interface	No. of Serial Ports	SD Card Support	Operating Temp.	Traffic Control Certificates	Power Supply Included
NPort 6150	RJ45	1	–	0 to 55°C	NEMA TS2	√
NPort 6150-T	RJ45	1	–	-40 to 75°C	NEMA TS2	–

Model Name	Ethernet Interface	No. of Serial Ports	SD Card Support	Operating Temp.	Traffic Control Certificates	Power Supply Included
NPort 6250	RJ45	2	Up to 32 GB (SD 2.0 compatible)	0 to 55°C	NEMA TS2	√
NPort 6250-M-SC	Multi-mode SC fiber connector	2	Up to 32 GB (SD 2.0 compatible)	0 to 55°C	NEMA TS2	√
NPort 6250-S-SC	Single-mode SC fiber connector	2	Up to 32 GB (SD 2.0 compatible)	0 to 55°C	NEMA TS2	√
NPort 6250-T	RJ45	2	Up to 32 GB (SD 2.0 compatible)	-40 to 75°C	NEMA TS2	–
NPort 6250-M-SC-T	Multi-mode SC fiber connector	2	Up to 32 GB (SD 2.0 compatible)	-40 to 75°C	NEMA TS2	–
NPort 6250-S-SC-T	Single-mode SC fiber connector	2	Up to 32 GB (SD 2.0 compatible)	-40 to 75°C	NEMA TS2	–

配件 (選購)

Connectors

ADP-RJ458P-DB9F	DB9 female to RJ45 connector
Mini DB9F-to-TB	DB9 female to terminal block connector

DIN-Rail Mounting Kits

DK35A	DIN-rail mounting kit, 35 mm
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Wall-Mounting Kits

WK-35-02	Wall-mounting kit with 2 plates (35 x 24 x 1.2 mm) and 6 screws
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Power Cords

CBL-PJ21NOPEN-BK-30	Locking barrel plug to bare-wire cable
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Power Adapters

PWR-12150-WPAU-S4	Locking barrel plug with 12 VDC, 1.5 A, 100 to 240 VAC, AU plug, 0 to 40°C operating temperature
PWR-12150-WPCN-S4	Locking barrel plug with 12 VDC, 1.5 A, 100 to 240 VAC, CN plug, 0 to 40°C operating temperature
PWR-12150-WPEU-S4	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, EU plug, 0 to 40°C operating temperature
PWR-12150-WPKR-S4	Locking barrel plug with 12 VDC, 1.5 A, 100 to 240 VAC, KR plug, 0 to 40°C operating temperature
PWR-12150-WPUK-S4	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, UK plug, 0 to 40°C operating temperature
PWR-12150-WPUSJP-S4	Locking barrel plug with 12 VDC, 1.5 A, 100 to 240 VAC, US/JP plug, 0 to 40°C operating temperature
PWR-12150-AU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, AU plug, -40 to 75°C operating temperature Applicable Models: NPort 6150-T NPort 6250-T NPort 6250-M-SC-T NPort 6250-S-SC-T
PWR-12150-CN-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, CN plug, -40 to 75°C operating temperature Applicable Models: NPort 6150-T NPort 6250-T NPort 6250-M-SC-T NPort 6250-S-SC-T
PWR-12150-EU-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, EU plug, -40 to 75°C operating temperature Applicable Models: NPort 6150-T NPort 6250-T NPort 6250-M-SC-T

	NPort 6250-S-SC-T
PWR-12150-UK-SA-T	Locking barrel plug, 12 VDC, 1.5 A, 100 to 240 VAC, UK plug, -40 to 75°C operating temperature Applicable Models: NPort 6150-T NPort 6250-T NPort 6250-M-SC-T NPort 6250-S-SC-T
PWR-12150-USJP-SA-T	Locking barrel plug, 12 VDC 1.5 A, 100 to 240 VAC, US/JP plug, -40 to 75°C operating temperature Applicable Models: NPort 6150-T NPort 6250-T NPort 6250-M-SC-T NPort 6250-S-SC-T

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