

NPort 5100A 系列

1 埠 RS-232/422/485 序列裝置伺服器，內建串列突波保護



特色與優點

- 功耗僅 1 W
- 快速 3 步驟網頁式配置
- 串列、電源和乙太網路具有突波保護
- 支援 COM 埠群組和 UDP multicast 應用
- 用於安裝更安穩的螺絲式電源連接器
- 用於 Windows、Linux 及 macOS 的 Real COM/TTY 驅動程式
- 標準 TCP/IP 介面及多樣化 TCP 和 UDP 操作模式
- 最多連接 8 個 TCP 主機

認證



簡介

NPort® 5100A 設備伺服器能夠讓串列裝置立即聯網，也讓您的 PC 軟體在任何地方可透過網路直接存取串列裝置。NPort® 5100A 設備伺服器超精巧、堅固耐用且方便使用，提供簡單且可靠的串列轉乙太網路解決方案。

更環保的串列轉乙太網路解決方案

MiiNe 是一款以 Arm 為基礎，並內嵌 RAM 和 Flash 的串列轉乙太網路 SoC，體積雖小但功能強大。因為 NPort® 5100A 系列採用 MiiNe 晶片，使得功耗小於 1 瓦。相較於市場上現有的解決方案，NPort® 5100A 系列可節省至少 50% 的功耗，協助工程師應對現今工業環境對於環保的要求規範。

串列、乙太網路和電源的突波保護

突波通常是來自雷擊或設備開關間所產生的短暫性高電壓，是所有電氣裝置的常見威脅。NPort® 5100A 採用了 Moxa 領先的突波保護技術，為串列、電源和乙太網路提供完整的保護，並通過 IEC 61000-4-5 認證標準。配備突波保護的串列連網解決方案，可以讓您的電氣設備遠離電壓變化或電氣雜訊等干擾。

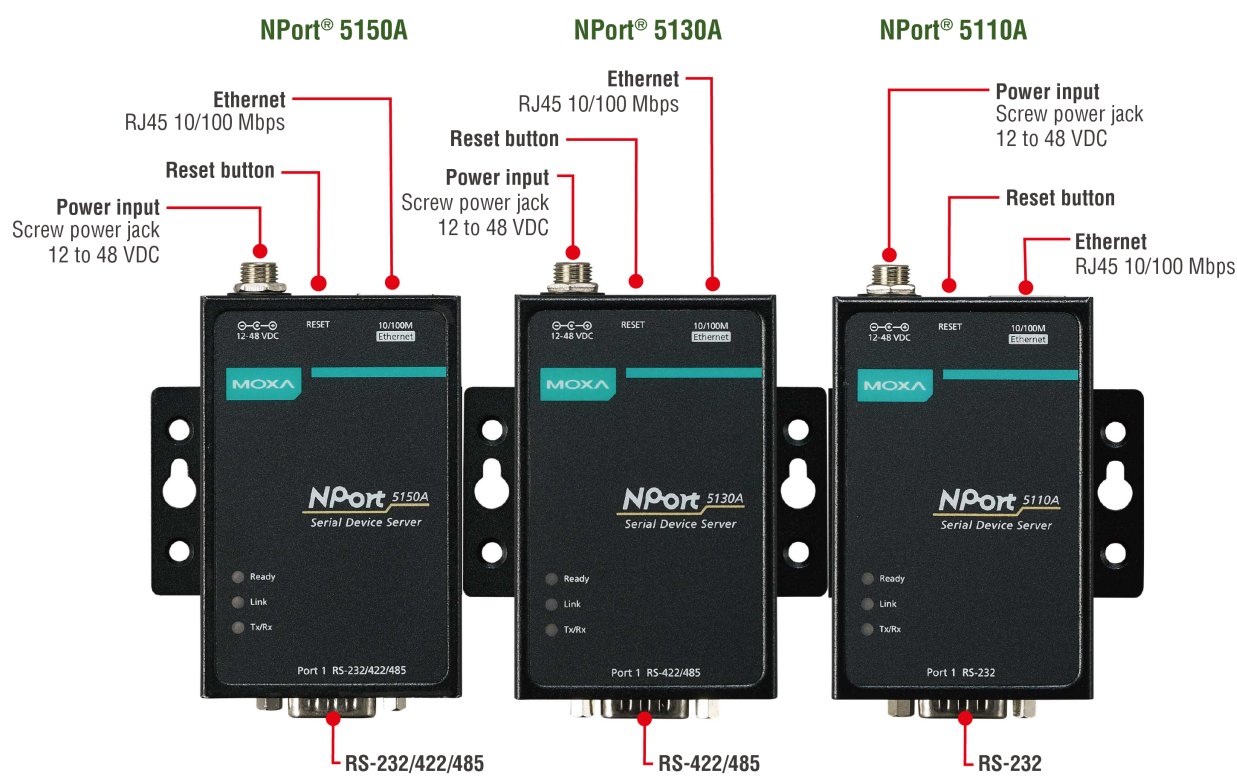
3 步驟網頁式配置

NPort® 5100A 提供簡明易懂且易於使用的網頁式配置工具，只需三個步驟便可完成設置。NPort® 5100A 的網頁式主控台將會引導使用者透過三個簡單的配置步驟，便可啟動串列轉乙太網路的應用。透過這種快速 3 步驟網頁式配置，使用者平均只需 30 秒即可完成 NPort® 設定並啟用應用程式，從而節省大量時間和精力。

輕鬆排除故障

NPort® 5100A 設備伺服器支援 SNMP，可透過乙太網路監控所有設備。一旦使用者定義的問題狀況發生，設備便可自動發送 trap 訊息給 SNMP 管理者。對於不使用 SNMP 管理員的使用者，它也可以通過 email 發送警報資訊。使用者可以使用 Moxa Windows utility 或 Web 主控台定義警示的觸發條件。舉例而言，您可以配置暖開機、冷開機或更改密碼時觸發報警。

外觀



規格

Ethernet Interface	
10/100BaseT(X) Ports (RJ45 connector)	1
Magnetic Isolation Protection	1.5 kV (built-in)
Ethernet Software Features	
Configuration Options	Windows Utility Web Console (HTTP/HTTPS) Device Search Utility (DSU) MCC Tool Telnet Console Serial Console (NPort 5110A/5150A models)
Management	DHCP Client ARP BOOTP DNS HTTP HTTPS ICMP IPv4 LLDP SMTP SNMPv1/v2c TCP/IP Telnet UDP
Filter	IGMP v1/v2
Windows Real COM Drivers	Windows 11, 10, 8.1, 8, 7, Vista, XP, ME, 98, and 95 Windows Server 2022, 2019, 2016, 2012 R2, 2012, 2008 R2, 2008, 2003, 2000, and NT Windows Embedded CE 6.0 and 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: 14, 13, 12, 11, and 10.1x

	SCO UNIX, SCO OpenServer, UnixWare 7, QNX 4.25, QNX 6, Solaris 10, FreeBSD, AIX 5.x, HP-UX 11i, Mac OS X
Arm®-based Platform Support	Windows 11 Linux kernel 6.x, 5.x, and 4.x macOS 14, 13, 12, and 11
Virtual Machine	VMWare ESXi (Windows 11/10) VMware Fusion (Windows on macOS 14, 13, 12, 11, and 10.1x) Parallels Desktop (Windows on macOS 14, 13, 12, 11, and 10.1x)
Android API	Android 3.1.x and later
MIB	RFC1213, RFC1317

Security Functions

Authentication	Local database
Encryption	HTTPS AES-128 SHA-1 RSA-1024 SHA-256
Security Protocols	HTTPS (TLS 1.2)

Serial Interface

Connector	DB9 male
No. of Ports	1
Serial Standards	NPort 5110A: RS-232 NPort 5130A: RS-422, RS-485 NPort 5150A: RS-232, RS-422, RS-485
Operation Modes	Disabled Ethernet Modem Pair Connection Real COM Reverse Telnet RFC2217 TCP Client TCP Server UDP
Baudrate	Supports standard baudrates (unit=bps): 50, 75, 110, 134, 150, 300, 600, 1200, 1800, 2400, 4800, 7200, 9600, 19200, 38400, 57600, 115200, 230.4k, 460.8k, 921.6k
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	RTS/CTS (RS-232 only) DTR/DSR (RS-232 only) XON/XOFF
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
RS-485 Data Direction Control	NPort 5150A/5150A-T/5130A/5130A-T: ADDC (automatic data direction control)
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

No. of Power Inputs	1
Input Current	NPort 5110A: 82.5 mA @ 12 VDC NPort 5130A: 89.1 mA @ 12 VDC NPort 5150A: 92.4 mA @ 12 VDC
Input Voltage	12 to 48 VDC
Source of Input Power	Power input jack

Reliability

Automatic Reboot Trigger	Built-in WDT
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Physical Characteristics

Housing	Metal
Dimensions (with ears)	75.2 x 80 x 22 mm (2.96 x 3.15 x 0.87 in)
Dimensions (without ears)	52 x 80 x 22 mm (2.05 x 3.15 x 0.87 in)
Weight	340 g (0.75 lb)
Installation	Desktop DIN-rail mounting (with optional kit) Wall mounting

Environmental Limits

Operating Temperature	Standard models: 0 to 60°C (32 to 140°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: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 0.5 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8 PFMF IEC 61000-4-11
Safety	UL 60950-1

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	2,231,530 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

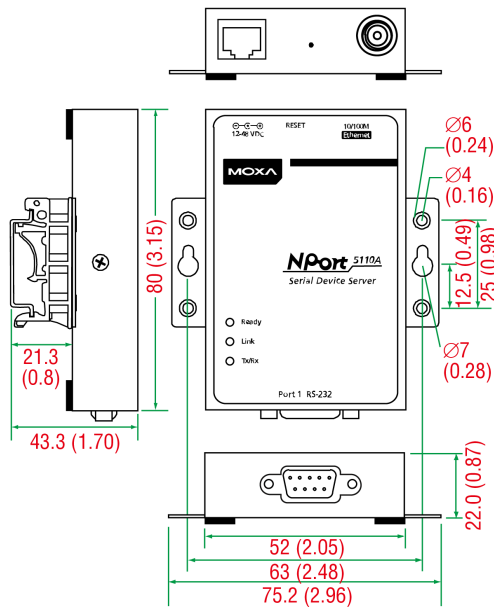
Package Contents

Device	1 x NPort 5100A Series device server
Power Supply	1 x power adapter, suitable for your region (standard temp. models only)
Documentation	1 x quick installation guide 1 x warranty card

尺寸

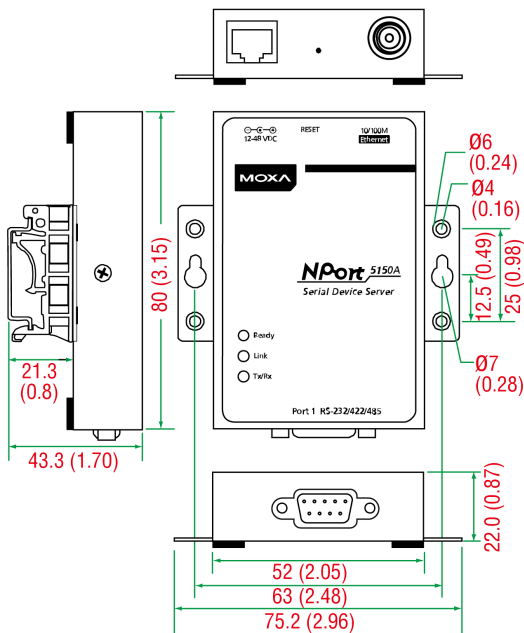
NPort 5110A

單位：公釐（英吋）



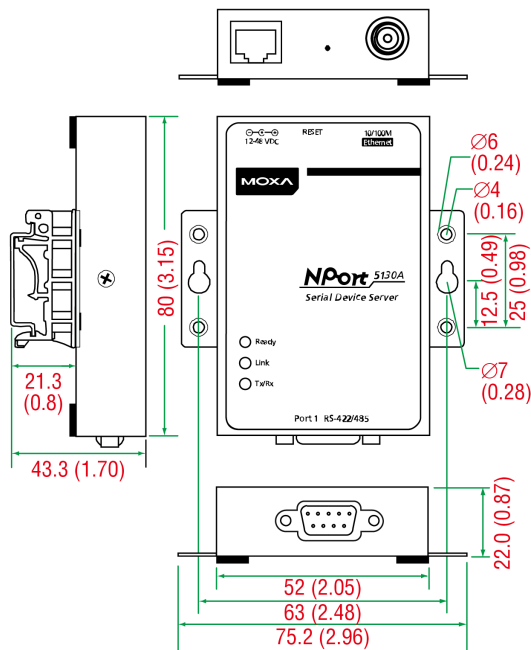
NPort 5150A

單位：公釐（英吋）



NPort 5130A

單位：公釐（英吋）



訂購資訊

Model Name	Operating Temp.	Baudrate	Serial Standards	No. of Serial Ports	Input Current	Input Voltage
NPort 5110A	0 to 60°C	50 bps to 921.6 kbps	RS-232	1	82.5 mA @ 12 VDC	12-48 VDC
NPort 5110A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-232	1	82.5 mA @ 12 VDC	12-48 VDC
NPort 5130A	0 to 60°C	50 bps to 921.6 kbps	RS-422/485	1	89.1 mA @ 12 VDC	12-48 VDC
NPort 5130A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-422/485	1	89.1 mA @ 12 VDC	12-48 VDC

Model Name	Operating Temp.	Baudrate	Serial Standards	No. of Serial Ports	Input Current	Input Voltage
NPort 5150A	0 to 60°C	50 bps to 921.6 kbps	RS-232/422/485	1	92.4 mA @ 12 VDC	12-48 VDC
NPort 5150A-T	-40 to 75°C	50 bps to 921.6 kbps	RS-232/422/485	1	92.4 mA @ 12 VDC	12-48 VDC

配件 (選購)

Cables

CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m

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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Power Adapters

PWR-12050-USJP-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, US/JP plug, 0 to 40°C operating temperature
PWR-12050-EU-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, EU plug, 0 to 40°C operating temperature
PWR-12050-CN-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, CN plug, 0 to 40°C operating temperature
PWR-12050-UK-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, UK plug, 0 to 40°C operating temperature
PWR-12050-AU-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, AU plug, 0 to 40°C operating temperature
PWR-12050-KR-S1	Locking barrel plug, 12 VDC, 0.5 A, 100 to 240 VAC, KR 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 5110A-T NPort 5130A-T NPort 5150A-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 5110A-T NPort 5130A-T NPort 5150A-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 5110A-T NPort 5130A-T NPort 5150A-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 5110A-T NPort 5130A-T NPort 5150A-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 5110A-T NPort 5130A-T NPort 5150A-T

Power Cords

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