

NPort IA5000A 系列

適用於工業自動化的 1、2 與 4 埠串列裝置伺服器



特色與優點

- 具有相同 IP 或雙 IP 位址以供用於網路備援的 2 個乙太網路連接埠
- 通過 C1D2、ATEX 與 IECEx 認證可用於惡劣工業環境
- 可輕鬆佈線的串聯乙太網路連接埠
- 強化的區域網路、串列和電力突波保護
- 螺絲類型接線端子模組，可便於安全電源/串列連接
- 備援 DC 電源輸入
- 透過繼電器輸出與電子郵件發出警告與警示
- 為串列訊號提供 2 kV 隔離 (隔離型號)
- -40 至 75°C 操作溫度範圍 (-T 型號)

認證

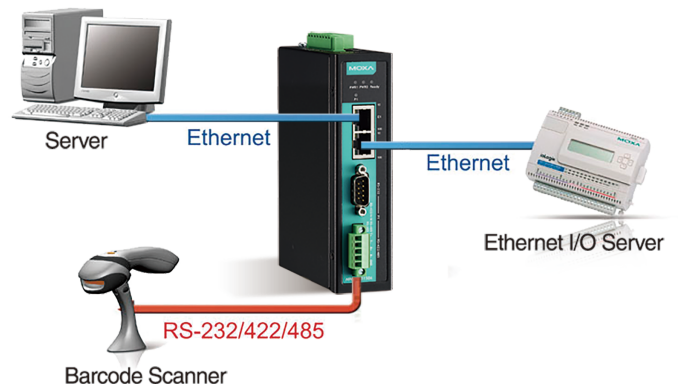


簡介

NPort IA5000A 裝置伺服器的設計可連接工業自動化串列裝置，例如 PLC、感應器、儀錶、馬達、驅動器、條碼讀碼器及操作員顯示器。裝置伺服器堅固耐用，隨附金屬外殼及螺絲連接器，並提供全突波保護。NPort IA5000A 裝置伺服器非常易用，給您穩定可靠串列轉乙太網路解決方案。

串聯乙太網路連接埠使佈線更輕鬆

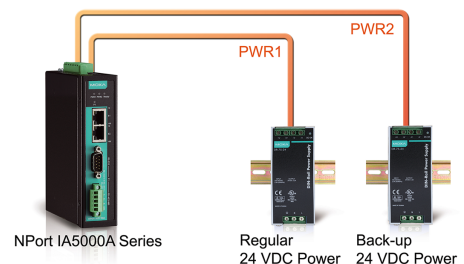
NPort IA5000A 裝置伺服器具有兩個乙太網路連接埠，可做為乙太網路交換器連接埠使用。一個連接埠可直接連接至網路或伺服器，另一個連接埠可連接至另一部 NPort IA 裝置伺服器或另一部乙太網路裝置。雙乙太網路連接埠無需將每部裝置連接到單獨的乙太網路交換器，即可協助降低佈線成本。



備援電源輸入

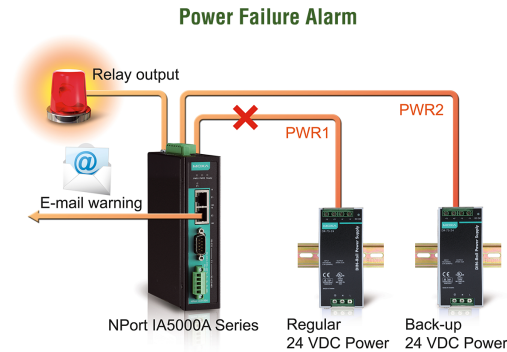
NPort IA5000A 系列裝置伺服器具備雙電源輸入，可同時連接兩組直流電源進行供電。如果一個電源故障，另一個電源便會自動接管。備援電源輸入可協助確保裝置伺服器的不斷電操作。

Dual Power Inputs



繼電器輸出警告與電子郵件警示

內建繼電器輸出可在網路斷線、電源發生故障，或 DCD 或 DSR 串列訊號變更時向管理員發出警示。也可在偵測到異常時發出電子郵件警告。這些功能是非常關鍵的工具，能夠協助維護工程師迅速應對緊急狀況。



串列、乙太網路和電源的突波保護

NPort® IA5000A 採用了 Moxa 領先的突波保護技術，為串列、電源和乙太網路線路提供完整的保護，並通過 IEC 61000-4-5 認證標準。這款進階突波保護裝置提供了穩固的串列轉乙太網路解決方案，能夠保護電氣裝置免受電壓突波的損害，並有效抵抗電氣干擾，特別適用於石油、天然氣及電力自動化等應用。

工業級認證

為確保在工業環境中的安全可靠運作，NPort® IA5000A 裝置伺服器已取得多項工業認證，包括 IP30 防護等級及 UL 508 工業控制設備安全認證。此外，這些裝置伺服器均已通過 UL/cUL 認證（針對 Class 1、Division 2、Groups A、B、C、D）、符合 ATEX Class 1 Zone 2 及 IECEx 標準可在危險位置使用。

規格

Ethernet Interface	
10/100BaseT(X) Ports (RJ45 connector)	Supports 2 IP addresses Auto MDI/MDI-X connection
Magnetic Isolation Protection	1.5 kV (built-in)
Ethernet Software Features	
Configuration Options	Web Console (HTTP/HTTPS), Windows Utility, Device Search Utility (DSU), MCC Tool, Serial Console, Telnet Console
Management	ARP, BOOTP, DHCP Client, DNS, HTTP, HTTPS, ICMP, IPv4, LLDP, Rtelnet, SMTP, SNMPv1/v2c, TCP/IP, Telnet, UDP
Filter	IGMP v1/v2
Linux Real TTY Drivers	Kernel versions: 2.4.x, 2.6.x, 3.x, 4.x, and 5.x
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, macOS 10.12, macOS 10.13, macOS 10.14, macOS 10.15
Android API	Android 3.1.x and later
Time Management	SNTP
Windows Real COM Drivers	Windows 95/98/ME/NT/2000, Windows XP/2003/Vista/2008/7/8/8.1/10/11 (x86/x64), Windows 2008 R2/2012/2012 R2/2016/2019 (x64), Windows Server 2022, Windows Embedded CE 5.0/6.0, Windows XP Embedded
Security Functions	
Authentication	Local database
Encryption	HTTPS, AES-128, RSA-1024, SHA-1, SHA-256
Security Protocols	HTTPS (TLS 1.2) IA5450A Models: SNMPv3

Serial Interface

Connector	NPort IA5150A Models: DB9 male (RS-232), Terminal Block (RS-422/485) NPort IA5250A/IA5450A Models: DB9 male (RS-232/422/485)
No. of Ports	NPort IA5150A Models: 1 NPort IA5250A Models: 2 NPort IA5450A Models: 4
Serial Standards	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	None, RTS/CTS (RS-232 only), DTR/DSR (RS-232 only), XON/XOFF
Isolation	NPort IA5150AI/IA5250AI/IA5450AI Models: 2 kV (I models)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	120 ohms
RS-485 Data Direction Control	ADDC (automatic data direction control)

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 IA5150A Models: 220 mA @ 12 VDC NPort IA5150AI Models: 225 mA @ 12 VDC NPort IA5250A Models: 250 mA @ 12 VDC NPort IA5250AI Models: 290 mA @ 12 VDC NPort IA5450A Models: 374 mA @ 12 VDC NPort IA5450AI Models: 512 mA @ 12 VDC
Input Voltage	12 to 48 VDC
No. of Power Inputs	2
Power Connector	Terminal block

Physical Characteristics

Housing	Metal
Dimensions	NPort IA5150A/IA5250A Models: 36 x 105 x 140 mm (1.42 x 4.13 x 5.51 in) NPort IA5450A Models: 45.8 x 134 x 105 mm (1.8 x 5.28 x 4.13 in)
Weight	NPort IA5150A Models: 475 g (1.05 lb) NPort IA5250A Models: 485 g (1.07 lb) NPort IA5450A Models: 560 g (1.23 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

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: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 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
Hazardous Locations	NPort IA5100A/IA5200A Models: UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2 NPort IA5100A-IEX/IA5200A-IEX Models: UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2, IECEx NPort IA5400A Models: UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2, IECEx
Safety	UL 508
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32

Declaration

Green Product	RoHS, CRoHS, WEEE
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MTBF

Time	NPort IA5150A/IA5250A Models: 262,805 hrs NPort IA5450A Models: 763,711 hrs
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

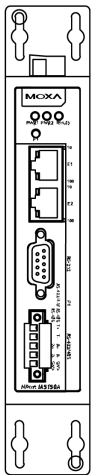
Package Contents

Device	1 x NPort IA5000A Series device server
Documentation	1 x quick installation guide 1 x warranty card

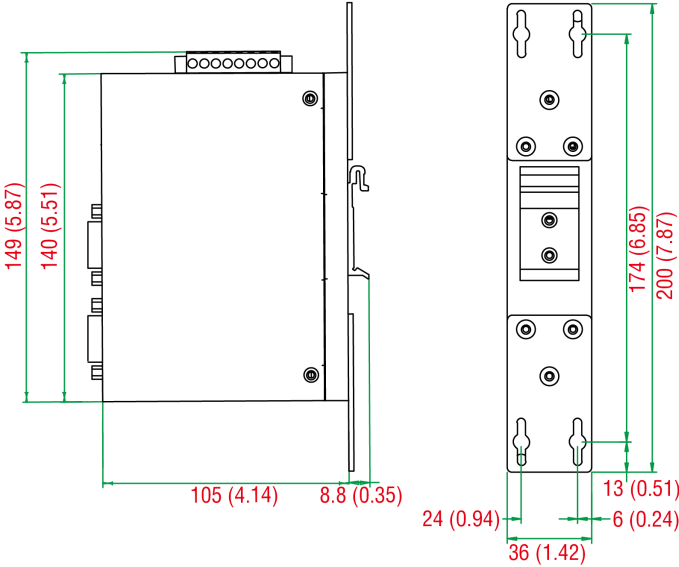
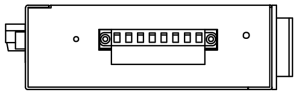
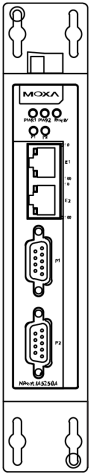
尺寸

單位：公釐（英吋）

NPort IA5150A
NPort IA5150AI

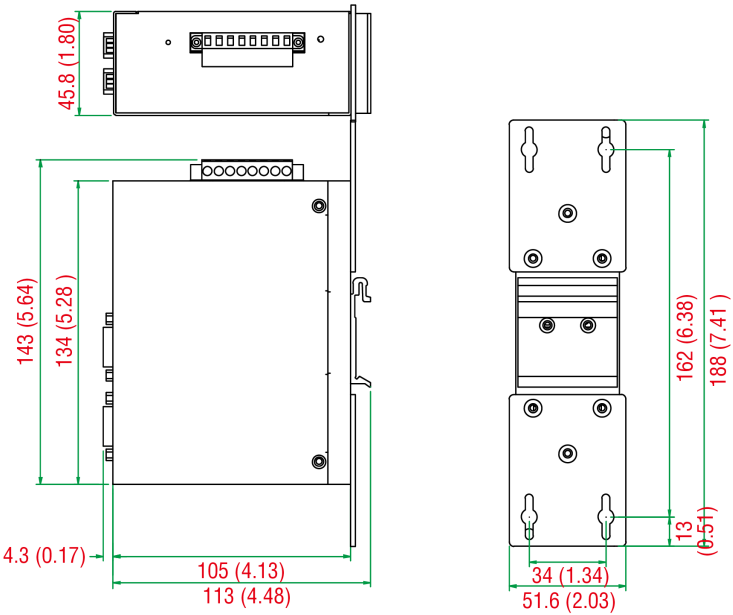
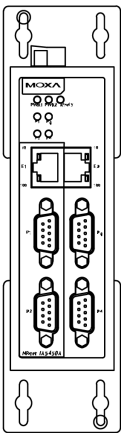


NPort IA5250A
NPort IA5250AI



單位：公釐（英吋）

NPort IA5450A
NPort IA5450AI



訂購資訊

Model Name	Operating Temp.	Serial Standards	Serial Isolation	No. of Serial Ports	Certification: Hazardous Locations
NPort IA5150A	0 to 60°C	RS-232/422/485	–	1	ATEX, C1D2
NPort IA5150A-T	-40 to 75°C	RS-232/422/485	–	1	ATEX, C1D2
NPort IA5150AI	0 to 60°C	RS-232/422/485	2 kV	1	ATEX, C1D2
NPort IA5150AI-T	-40 to 75°C	RS-232/422/485	2 kV	1	ATEX, C1D2
NPort IA5150A-IEEx	0 to 60°C	RS-232/422/485	–	1	ATEX, C1D2, IECEx
NPort IA5150A-T-IEEx	-40 to 75°C	RS-232/422/485	–	1	ATEX, C1D2, IECEx

Model Name	Operating Temp.	Serial Standards	Serial Isolation	No. of Serial Ports	Certification: Hazardous Locations
NPort IA5150AI-IEEX	0 to 60°C	RS-232/422/485	2 kV	1	ATEX, C1D2, IECEx
NPort IA5150AI-T-IEEX	-40 to 75°C	RS-232/422/485	2 kV	1	ATEX, C1D2, IECEx
NPort IA5250A	0 to 60°C	RS-232/422/485	–	2	ATEX, C1D2
NPort IA5250A-T	-40 to 75°C	RS-232/422/485	–	2	ATEX, C1D2
NPort IA5250AI	0 to 60°C	RS-232/422/485	2 kV	2	ATEX, C1D2
NPort IA5250AI-T	-40 to 75°C	RS-232/422/485	2 kV	2	ATEX, C1D2
NPort IA5250A-IEEX	0 to 60°C	RS-232/422/485	–	2	ATEX, C1D2, IECEx
NPort IA5250A-T-IEEX	-40 to 75°C	RS-232/422/485	–	2	ATEX, C1D2, IECEx
NPort IA5250AI-IEEX	0 to 60°C	RS-232/422/485	2 kV	2	ATEX, C1D2, IECEx
NPort IA5250AI-T-IEEX	-40 to 75°C	RS-232/422/485	2 kV	2	ATEX, C1D2, IECEx
NPort IA5450A	0 to 60°C	RS-232/422/485	–	4	ATEX, C1D2, IECEx
NPort IA5450A-T	-40 to 75°C	RS-232/422/485	–	4	ATEX, C1D2, IECEx
NPort IA5450AI	0 to 60°C	RS-232/422/485	2 kV	4	ATEX, C1D2, IECEx
NPort IA5450AI-T	-40 to 75°C	RS-232/422/485	2 kV	4	ATEX, C1D2, IECEx

配件 (選購)

Cables

CBL-F9M9-150	DB9 female to DB9 male serial cable, 1.5 m
CBL-F9M9-20	DB9 female to DB9 male serial cable, 20 cm
CBL-RJ458P-100	8-pin RJ45 CAT5 Ethernet cable, 1 m
CBL-RJ45SF9-150	8-pin RJ45 to DB25 male serial cable with shielding, 1.5m

Connectors

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

Power Cords

CBL-PJTB-10	Non-locking barrel plug to bare-wire cable
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Power Supplies

DR-4524	45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature
DR-120-24	120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature
DR-75-24	75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature

Wall-Mounting Kits

WK-36-02	DIN-rail/wall-mounting kit, 2 plates, 6 screws Applicable Models: NPort IA5150A NPort IA5250A
WK-51-01	Wall mounting kit with 2 plates (51.6 x 67 x 2 mm) and 6 screws Applicable Models: NPort IA5450A

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