

# NPort S8000 系列

## Combo 交換器/串列設備連網伺服器



### 特色與優點

- 4 埠 RS-232/422/485 串列設備連網伺服器
- 串列 QoS 可用於配置串列資料傳輸優先性
- 每個串列埠的 2 kV 隔離保護 ( 僅限 S8455I )
- 針對 RS-485 連接埠的可調整的 pull high/low 電阻 ( 僅限 S8455I )
- 內建的網管型乙太網路交換器
- S8455I Fiber : 2 個光纖乙太網路連接埠和 3 個乙太網路連接埠
- S8455I All Copper : 5 個乙太網路連接埠
- S8458 型號 : 4 個光纖乙太網路連接埠和 4 個乙太網路連接埠
- 支援 Turbo Ring 和 Turbo Chain ( 復原時間小於 20 毫秒 ) 或 RSTP/STP (IEEE 802.1w/D) 的乙太網路備援
- 支援 QoS、IGMP-snooping/GMRP、VLAN、LACP、SNMPv1/v2c/v3、RMON
- 串列、電源和乙太網路具有突波保護

### 認證



## 簡介

NPort S8000 系列結合了工業級的 4 埠 RS-232/422/485 設備連網伺服器和全功能的網管型乙太網路交換器。讓您輕鬆安裝、管理和維護產品。在單一產品中結合設備連網伺服器和交換器，您可以節省機櫃空間、降低整體耗電量，並降低成本，因為您無需個別購買交換器和串列裝置伺服器。

### 支援全系列 NPort 5000 系列裝置伺服器功能

NPort S8000 系列支援全系列 NPort 5000 裝置伺服器功能。您可透過簡易的配置將 4 台串列設備連接至此伺服器，只需進行基本配置。此外，串列埠和乙太網路介面之間的資料通訊是雙向的。

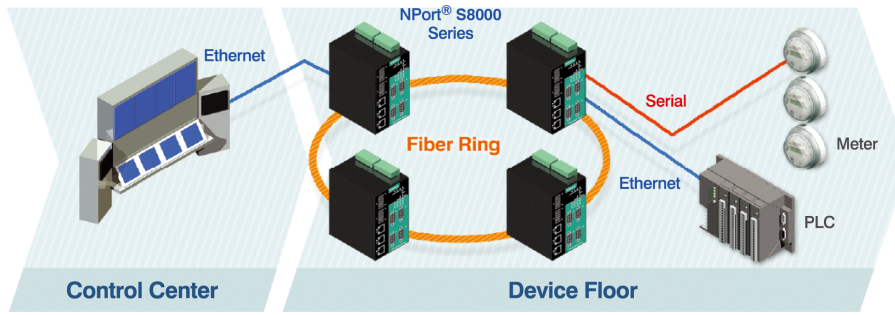
### 全功能網管型乙太網路交換器

NPort S8000 系列內建全功能網管型乙太網路交換器，支援 QoS、IGMP 偵聽/GMRP、VLAN、Port Trunking、SNMPv1/v2c/v3 和 IEEE 802.1X，能夠讓您滿足幾乎任何類型的應用。Moxa 的 Turbo Ring 和 Turbo Chain 技術 ( 復原時間小於 20 毫秒 ) 或 RSTP/STP (IEEE 802.1w/D) 提供乙太網路備援，用於提高工業乙太網路的可靠性和可用性。

### 設備層級的 Ring 備援

工業自動化中，設備層級的通訊網路扮演著重要角色，這些網路的作用是控制和監視設備處理程序。這類通訊的可靠性必須依賴設備層級的 ring 備援。即是設計用於提供快速網路故障偵測與回復的機制，支援最嚴苛的控制應用。NPort S8000 系列將全功能 NPort 設備連網伺服器與工業交換器相互整合，同時連結串列和乙太網路裝置。

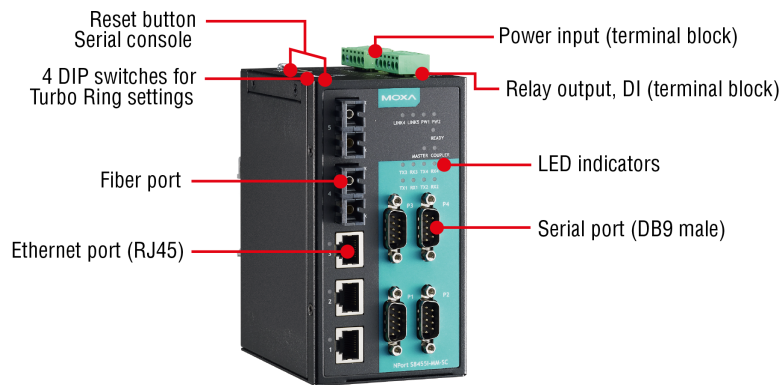
此外，NPort S8000 系列也可透過標準 STP/RSTP 和 Moxa 的私有 Turbo Ring 或 Turbo Chain 2 備援通訊協定進行環網備援。這種一體式設計可優化和簡化裝置網路並提高可靠性。



## 具有全面保護的堅固設計

NPort S8000 系列符合 UL 508 標準，涵蓋工業控制設備的安全要求。NPort S8458 型號支援高等級 8/15 kV ESD 保護，防止靜電造成的損壞。此型號提供電源、乙太網路介面和串列介面的突波保護，防止電壓突波。NPort S8455I 的每個串列埠均採用 2 kV 隔離保護，防止有害電流。

## 外觀



## 規格

### Input/Output Interface

Alarm Contact Channels	2, Resistive load: 1 A @ 24 VDC
Digital Input Channels	2
Digital Inputs	+13 to +30 V for state 1 -30 to +1 V for state 0 Max. input current: 8 mA

### Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	NPort S8455I/S8455I-T: 5 NPort S8455I-MM-SC/SS-SC Series: 3 NPort S8458-4S-SC-T: 4
100BaseFX Ports (multi-mode SC connector)	NPort S8455I-MM-SC Series: 2
100BaseFX Ports (single-mode SC connector)	NPort S8455I-SS-SC Series: 2 NPort S8458-4S-SC-T: 4

### Optical Fiber

		100BaseFX		
		Multi-Mode		Single-Mode
Fiber Cable Type	OM1	50/125 $\mu\text{m}$	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

		100BaseFX		
		Multi-Mode		Single-Mode
		Fiber Cable Type	OM1	50/125 μm
			800 MHz x km	
	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
<p>Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power.</p> <p>Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) &gt; dispersion penalty (dB) + total link loss (dB).</p>				
Magnetic Isolation Protection		1.5 kV (built-in)		
Standards		IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1X for authentication IEEE 802.3 for 10BaseT IEEE 802.3ad for Port Trunk with LACP IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control		

### Switch Properties

IGMP Groups	256
Max. No. of VLANs	64
Priority Queues	4
VLAN ID Range	VID 1 to 4094

### Ethernet Software Features

Configuration Options	Web Console (HTTP/HTTPS), Windows Utility, Serial Console, Telnet Console
Management	BOOTP, Device Search Utility (DSU), DHCP Client, DHCP Option 82, HTTP, IPv4, LLDP, Port Mirror, RMON, SMTP, SNMPv1/v2c/v3, Syslog, TCP/IP, Telnet, Web Console
Filter	802.1Q, GVRP, IGMP v1/v2
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 R2/2016/2019 (x64), Windows Embedded CE 5.0/6.0, Windows XP Embedded
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
Android API	Android 3.1.x and later
Time Management	SNTP
MIB	Bridge MIB, Device Settings MIB, Ethernet-like MIB, MIB-II, P-BRIDGE MIB, Q-BRIDGE MIB, RFC1213, RFC1317, RMON MIB Groups 1, 2, 3, 9, RSTP MIB
Redundancy Protocols	RSTP, Turbo Chain, Turbo Ring v1, Turbo Ring v2

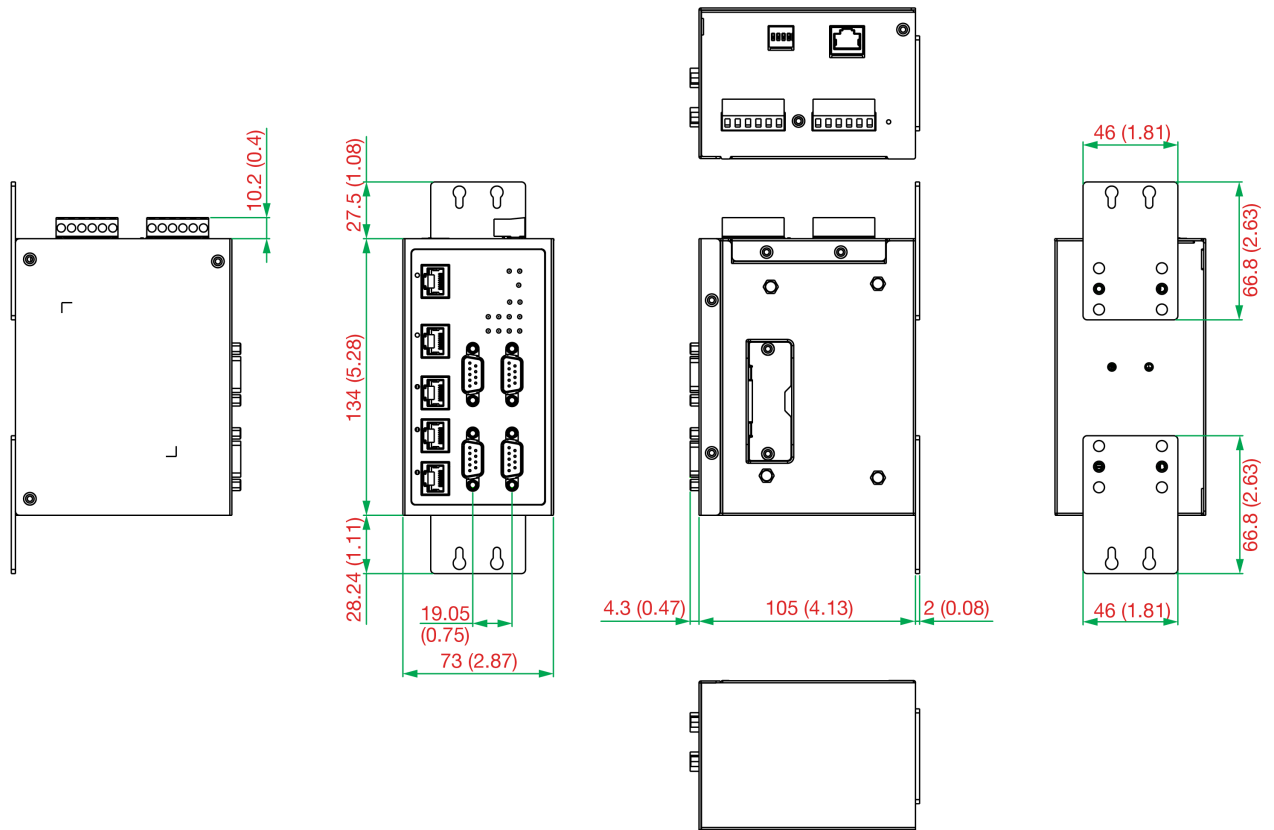
Security	HTTPS, SSL, SSH
Authentication	Local Account Accessibility, RADIUS
<b>Serial Interface</b>	
Connector	DB9 male
No. of Ports	4
Serial Standards	RS-232, RS-422, RS-485
Operation Modes	Disabled, Real COM mode, RFC2217 mode, TCP Client mode, TCP Server mode, UDP mode
Baudrate	50 bps to 921.6 kbps
Data Bits	5, 6, 7, 8
Stop Bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark
Flow Control	None, RTS/CTS, XON/XOFF
Isolation	NPort S8455I Series: 2 kV
Surge	NPort S8458-4S-SC-T: 4 kV
RS-485 Data Direction Control	ADDC® (automatic data direction control)
Pull High/Low Resistor for RS-485	1 kilo-ohm, 150 kilo-ohms
Terminator for RS-485	120 ohms
Console Port	RS-232 (TxD, RxD, GND), 8-pin RJ45 (19200, n, 8, 1)
<b>Serial Signals</b>	
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
<b>DIP Switch Configuration</b>	
Ethernet Interface	Coupler, Master, Reserved, Turbo Ring
<b>Power Parameters</b>	
No. of Power Inputs	2
Power Connector	2 removable 6-contact terminal block(s)
Input Current	NPort S8455I Series: 935 mA @ 12 VDC NPort S8458-4S-SC-T: 940 mA @ 12 VDC
Input Voltage	12 to 48 VDC
<b>Physical Characteristics</b>	
Housing	Metal
Dimensions	NPort S8455I Series: 73.1 x 134 x 125 mm (2.88 x 5.27 x 4.92 in) NPort S8458-4S-SC-T: 93 x 144 x 125 mm (3.66 x 5.64 x 4.92 in)

Weight	NPort S8455I Series: 578 g (1.27 lb) NPort S8458-4S-SC-T: 1105 g (2.44 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)
<b>Environmental Limits</b>	
Operating Temperature	Standard Temp. Models: 0 to 60°C (32 to 140°F) NPort S8455I-T Series: -40 to 75°C (-40 to 167°F) NPort S8458-4S-SC-T: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
<b>Standards and Certifications</b>	
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	NPort S8455I Series: 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: Signal: 1 kV IEC 61000-4-5 Surge: Power: 1 kV; Signal: 0.25 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8 PFMF  NPort S8458 Series: IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 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: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 150 kHz to 80 MHz: 10 V/m; Signal: 10 V/m IEC 61000-4-8
Environmental Testing	IEC 60068-2-1 IEC 60068-2-3
Hazardous Locations	NPort S8455I Series: Class I Division 2
Safety	EN 60950-1, IEC 60950-1, UL 508, UL 60950-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
<b>MTBF</b>	
Time	NPort S8455I/S8455I-T: 287,354 hrs NPort S8455I-MM-SC/MM-SC-T: 200,951 hrs NPort S8455I-SS-SC/SS-SC-T: 286,993 hrs NPort S8458-4S-SC-T: 163,624 hrs
Standards	Telcordia (Bellcore) Standard TR/SR
<b>Warranty</b>	
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/tw/warranty">www.moxa.com/tw/warranty</a>
<b>Package Contents</b>	
Device	1 x NPort S8000 Series device server
Documentation	1 x document and software CD 1 x quick installation guide 1 x warranty card

# 尺寸

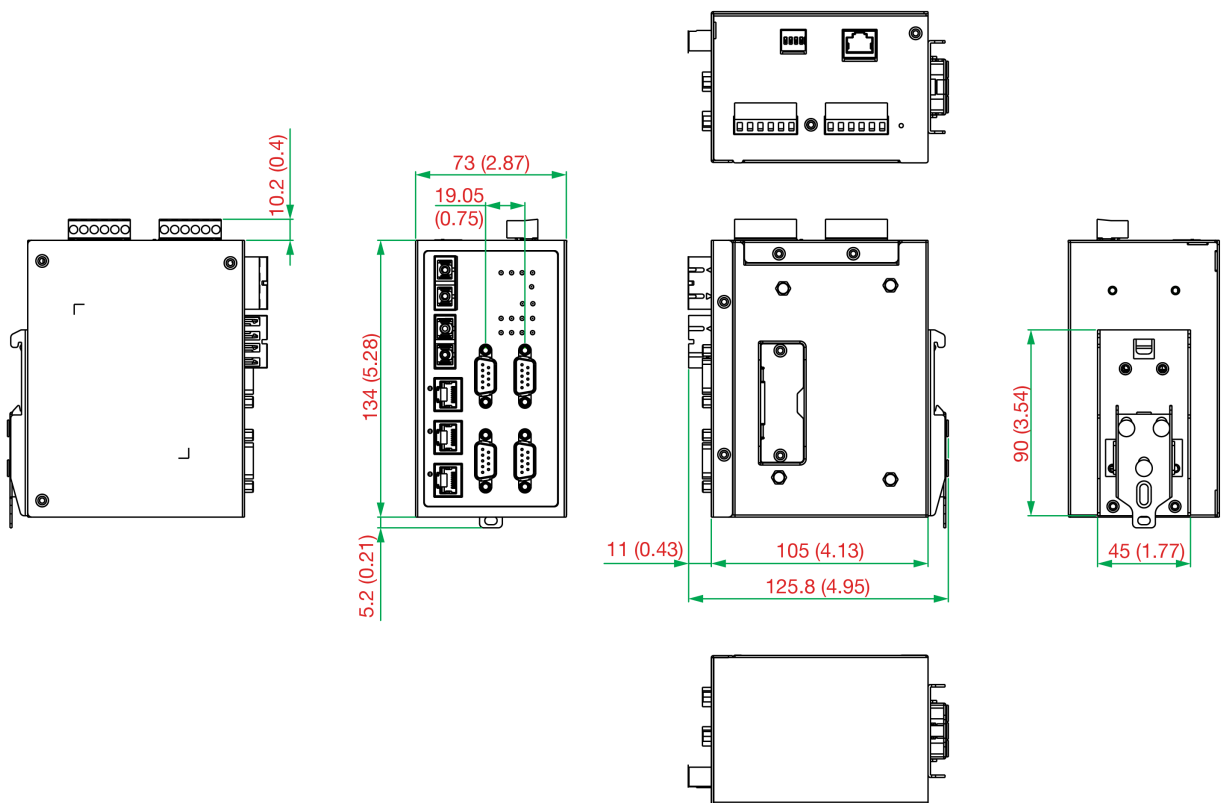
## NPort S8455I

單位：公釐 (英吋)



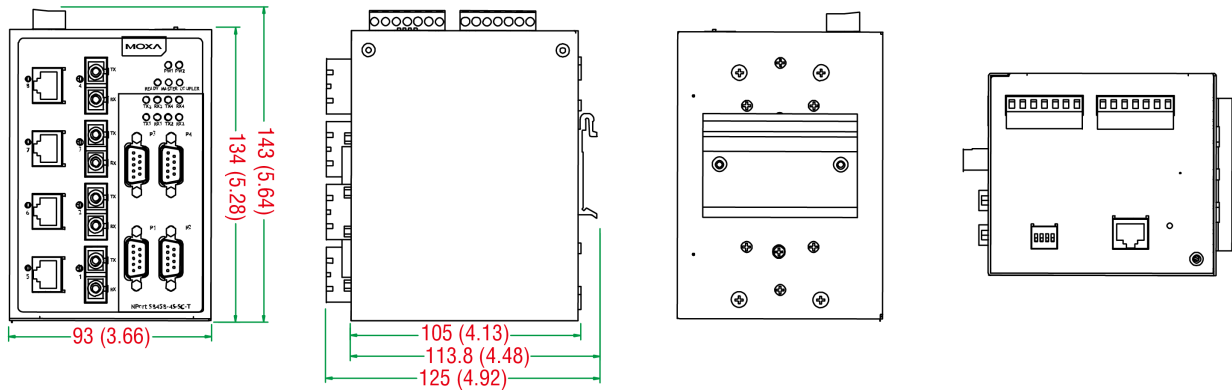
## NPort S8455I Fiber

單位：公釐 (英吋)



## NPort S8458

單位：公釐（英吋）



## 訂購資訊

Model Name	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports Multi-Mode SC Connector	100BaseFX Ports Single-Mode SC Connector	Operating Temp.	Input Voltage
NPort S8455I	5	-	-	0 to 60°C	12-48 VDC
NPort S8455I-T	5	-	-	-40 to 75°C	12-48 VDC
NPort S8455I-MM-SC	3	2	-	0 to 60°C	12-48 VDC
NPort S8455I-MM-SC-T	3	2	-	-40 to 75°C	12-48 VDC
NPort S8455I-SS-SC	3	-	2	0 to 60°C	12-48 VDC
NPort S8455I-SS-SC-T	3	-	2	-40 to 75°C	12-48 VDC
NPort S8458-4S-SC-T	4	-	4	-40 to 85°C	12-48 VDC

## 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
CN20070	10-pin RJ45 to DB9 female serial cable

### 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
-------------	--

### Power Supplies

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-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-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-46

Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm

© Moxa Inc. 版權所有.2020 年 6 月 22 日更新。

未經 Moxa Inc. 明確書面許可，不得以任何方式複製或使用本文件及其任何部分。產品規格如有變更，恕不另行通知。請至本公司官網了解最新的產品資訊。