

NPort S8000 系列

配備網管型乙太網路交換器的 4 埠裝置伺服器



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
- 內建的網管型乙太網路交換器
- S8455I Fiber 型號：2 個光纖乙太網路連接埠和 3 個乙太網路連接埠
- S8455I All Copper 型號：5 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
- 串列訊號 2 kV 隔離 (隔離型號)
- 針對 RS-485 連接埠的可調整的上拉/下拉電阻
- 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。

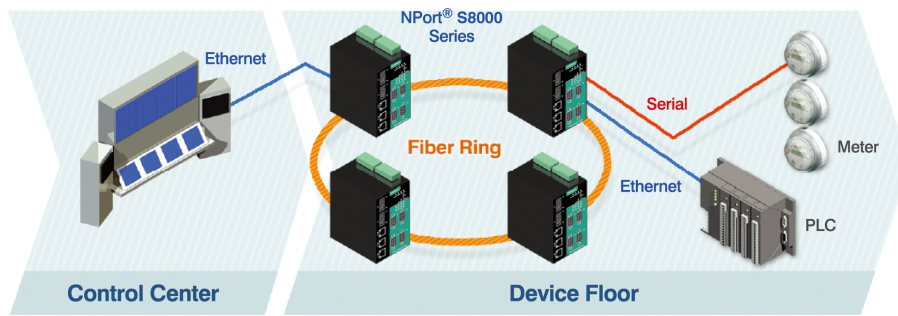
全功能網管型乙太網路交換器

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。

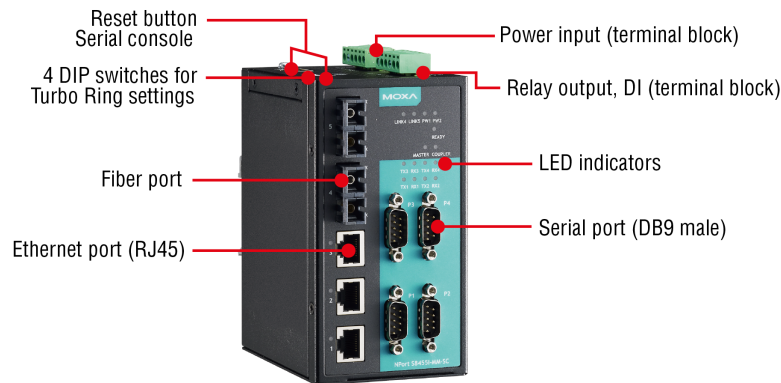
設備層級的 Ring 備援

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。



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 Models: 3
100BaseFX Ports (multi-mode SC connector)	NPort S8455I-MM-SC Models: 2
100BaseFX Ports (single-mode SC connector)	NPort S8455I-SS-SC Models: 2

Optical Fiber

		100BaseFX		
		Multi-Mode	Single-Mode	
Fiber Cable Type		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

	100BaseFX			
	Multi-Mode		Single-Mode	
	Fiber Cable Type	OM1	50/125 μm	G.652
			800 MHz x km	
		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).				

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 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 5.0 and 6.0, 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
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)
Arm®-based Platform Support	Windows 11 Linux Kernel 6.x, 5.x and 4.x macOS 14, 13, 12 and 11
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

Serial Interface

Connector	DB9 male
No. of Ports	4
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	2 kV
RS-485 Data Direction Control	Automatic Data Direction Control (ADDC)
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)
Serial Standards	RS-232/422/485
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
DIP Switch Configuration	
Ethernet Interface	Coupler Master Reserved Turbo Ring
Power Parameters	
No. of Power Inputs	2
Power Connector	2 removable 6-contact terminal block(s)
Input Current	935 mA @ 12 VDC
Input Voltage	12 to 48 VDC
Physical Characteristics	
Housing	Metal
Dimensions	73.1 x 134 x 125 mm (2.88 x 5.27 x 4.92 in)
Weight	578 g (1.27 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	Standard Temp. Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature	-40 to 75°C (-40 to 167°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
EMC	EN 55032/24
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: 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
Environmental Testing	IEC 60068-2-1 IEC 60068-2-3
Hazardous Locations	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

MTBF

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
Standards	Telcordia (Bellcore) Standard TR/SR

Warranty

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

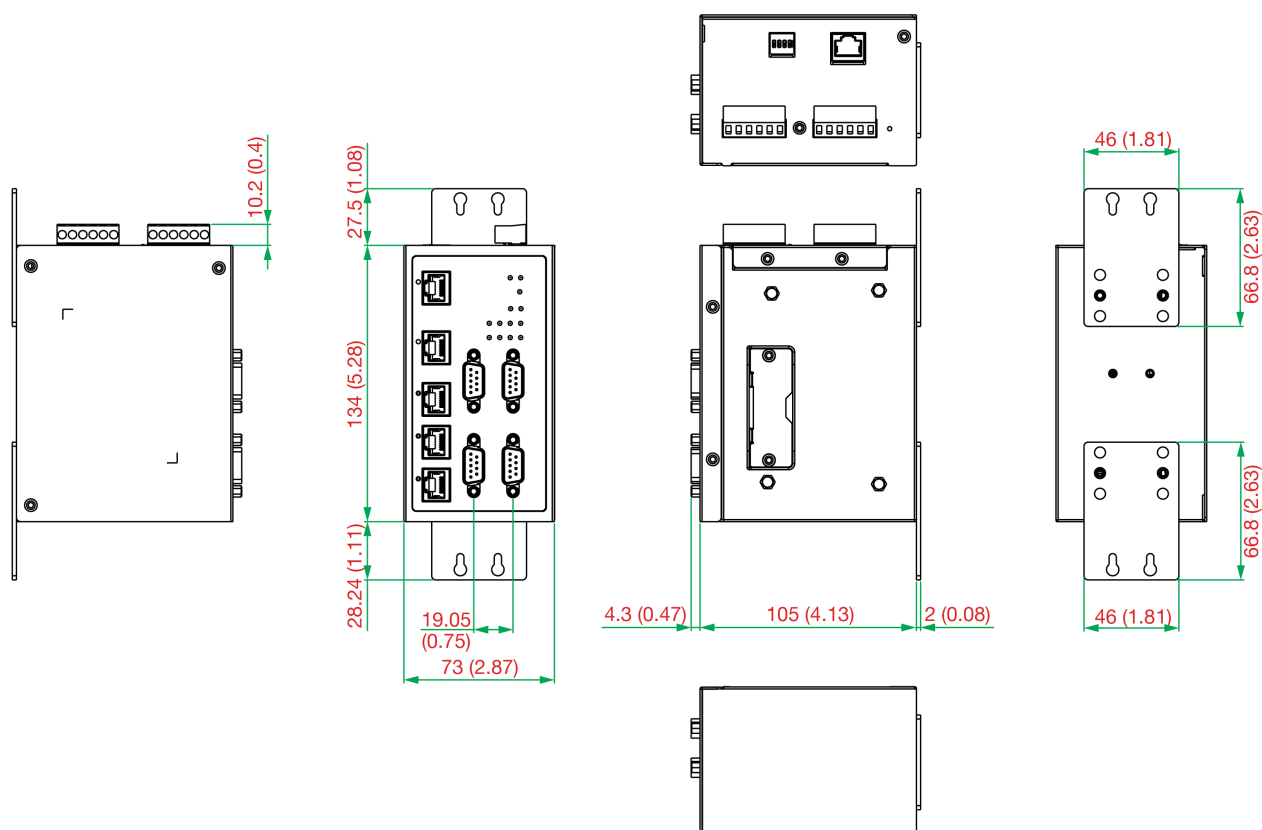
Package Contents

Device	1 x NPort S8000 Series device server
Documentation	1 x quick installation guide 1 x warranty card

尺寸

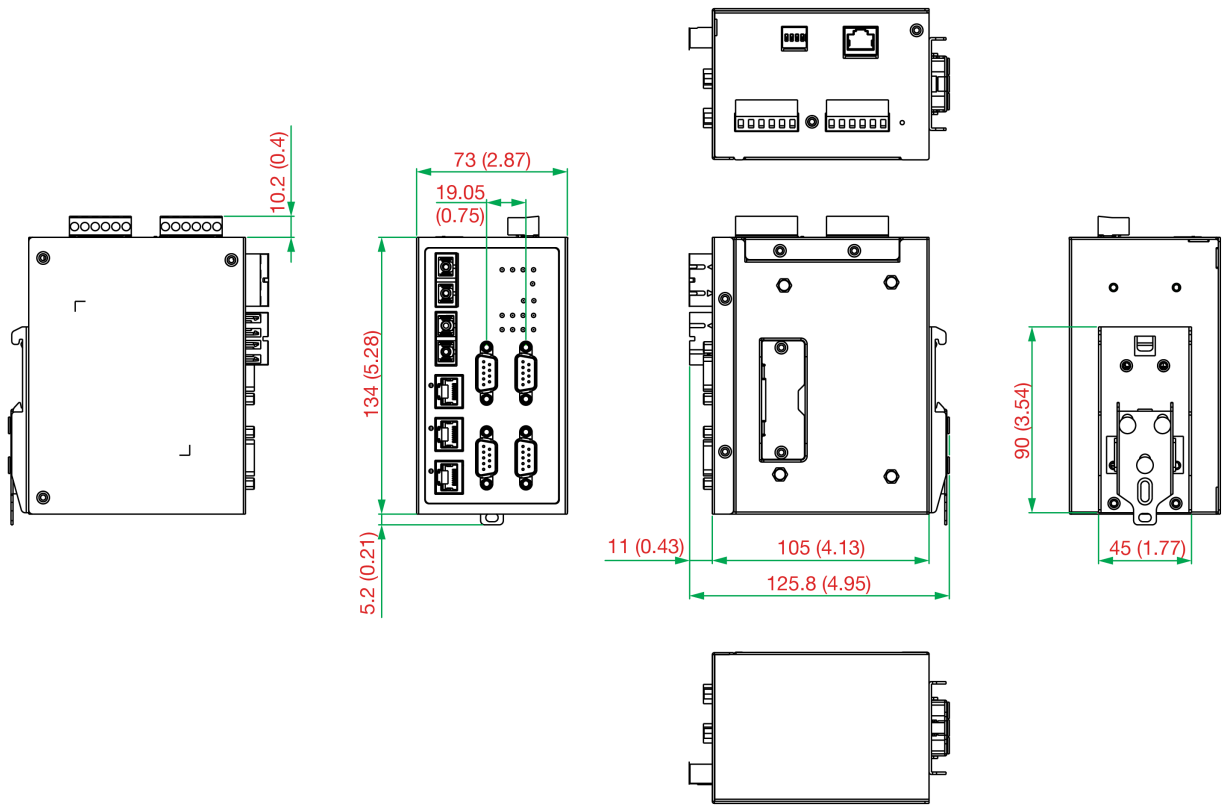
NPort S8455I

單位：公釐（英吋）



NPort S8455I Fiber

單位：公釐（英吋）



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

配件（選購）

Cables

CN20070	10-pin RJ45 to DB9 female serial cable
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

Power Cords

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

HDR-60-24	60 W/2.5 A DIN-rail 24 VDC power supply, universal 85 to 264 VAC or 120 to 370 VDC input voltage, -30 to 70°C operating temperature
NDR-120-24	120 W/5.0 A DIN-rail 24 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature

Wall-Mounting Kits

WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm
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