EDS-408A 系列

8 埠入門級網管型乙太網路交換器



特色與優點

- 支援 Turbo Ring 和 Turbo Chain（復原時間 < 20 毫秒 @ 250 台交換器）、RSTP/STP，實現網路備援
- 支援 IGMP 窺探、QoS、IEEE 802.1Q VLAN 以及以連接埠為基礎的 VLAN
- 透過網頁瀏覽器、CLI、Telnet / 串列主控台、Windows 工具程式和 ABC-01 輕鬆管理網路
- 預設情況下啟用 PROFINET 或 EtherNet/IP（PN 或 EIP 型號）
- 支援 MXstudio，輕鬆實現可視化的工業網路管理

認證

簡介

EDS-408A 系列專為工業應用所設計。這系列的交換器支援多種實用的管理功能，例如：Turbo Ring、Turbo Chain、環形連結器、IGMP 窺探、IEEE 802.1Q VLAN、以連接埠為基礎的 VLAN、QoS、RMON、頻寬管理、連接埠鏡像，以及透過電子郵件或繼電器發出警告。Turbo Ring 可以使用網頁管理介面或是在 EDS-408A 交換器頂端面板的 DIP 開關進行簡易設定。

附加特色與優點

- DHCP Option 82 以不同原則指派 IP 位址
- 支援用於設備管理與監控的 EtherNet/IP、Modbus TCP 和 PROFINET 通訊協定[1]
- 提供 EtherNet/IP EDS（電子資料表）檔案、自訂 AOI（附加說明）及 FactoryTalk® 可視化面版
- 可提供 PROFINET GSDML 檔案及 SIMATIC STEP 7 設備圖示[2]
- Port mirroring 可用於除錯
- 以連接埠為基礎的 VLAN、IEEE 802.1Q VLAN 以及 GVRP，用來簡化網路規劃
- QoS（IEEE 802.1p 和 TOS/DiffServ）提高可靠性
- RMON 提供主動且有效率的網路監控
- SNMPv1/v2c/v3，適用不同層級的網路管理安全性
- 頻寬管理可預防不穩定的網路狀態出現

規格

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-408A/408A-T, EDS-408A-EIP/PN models: 8 EDS-408A-MM-SC/MM-ST/SS-SC models: 6 EDS-408A-3M-SC/3M-ST/3S-SC/3S-SC-48/1M2S-SC/2M1S-SC models: 5 All models support: Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
100BaseFX Ports (multi-mode SC connector)	EDS-408A-MM-SC/2M1S-SC models: 2 EDS-408A-3M-SC models: 3 EDS-408A-1M2S-SC models: 1
100BaseFX Ports (multi-mode ST connector)	EDS-408A-MM-ST models: 2 EDS-408A-3M-ST models: 3
100BaseFX Ports (single-mode SC connector)	EDS-408A-SS-SC/1M2S-SC models: 2 EDS-408A-2M1S-SC models: 1 EDS-408A-3S-SC/3S-SC-48 models: 3

1. 僅限 EDS-408A-PN 系列
2. 僅支援 EDS-408A-PN 系列

Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control 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

Optical Fiber

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

Filter	802.1Q VLAN GMRP GVRP IGMP v1/v2 Port-based VLAN
Industrial Protocols	EtherNet/IP Modbus TCP EDS-408A-PN models: PROFINET IO Device (Slave)
Management	Back Pressure Flow Control BOOTP DHCP Option 66/67/82 DHCP Server/Client Flow control IPv4/IPv6 LLDP Port Mirroring RARP RMON SMTP SNMP Inform SNMPv1/v2c/v3 Syslog Telnet TFTP
MIB	Bridge-MIB Ethernet-like-MIB MIB-II P-BRIDGE MIB RMON MIB Groups 1, 2, 3, 9 RSTP MIB

Redundancy Protocols	RSTP STP Turbo Chain Turbo Ring v1/v2
Security	Broadcast storm protection HTTPS/SSL NTP authentication Port Lock SNMPv3 SSH Trust access control
Time Management	NTP Server/Client SNTP

Switch Properties

IGMP Groups	256
MAC Table Size	8 K
Max. No. of VLANs	64
Packet Buffer Size	1 Mbits
Priority Queues	4
VLAN ID Range	VID 1 to 4094

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 10-pin RJ45 (115200, n, 8, 1)

DIP Switch Configuration

Ethernet Interface	Turbo Ring, Master, Coupler, Reserve

Input/Output Interface

Alarm Contact Channels	Relay output with current carrying capacity of 1 A @ 24 VDC

Power Parameters

Connection	1 removable 6-contact terminal block(s)
Input Voltage	All models: Redundant dual inputs EDS-408A/408A-T, EDS-408A-MM-SC/MM-ST/SS-SC/3M-SC/3M-ST/3S-SC/1M2S-SC/2M1S-SC/EIP/PN models: 12/24/48 VDC EDS-408A-3S-SC-48/408A-3S-SC-48-T models: ±24/±48 VDC
Operating Voltage	EDS-408A/408A-T, EDS-408A-MM-SC/MM-ST/SS-SC/3M-SC/3M-ST/3S-SC/1M2S-SC/2M1S-SC/EIP/PN models: 9.6 to 60 VDC EDS-408A-3S-SC-48 models: ±19 to ±60 VDC[3]
Input Current	EDS-408A, EDS-408A-EIP/PN/MM-SC/MM-ST/SS-SC models: 0.61 @ 12 VDC 0.3 @ 24 VDC 0.16 @ 48 VDC EDS-408A-3M-SC/3M-ST/3S-SC/1M2S-SC/2M1S-SC models: 0.73 @ 12 VDC 0.35 @ 24 VDC 0.18 @ 48 VDC EDS-408A-3S-SC-48 models: 0.33 A @ 24 VDC

3. -60 至 -19 VDC 或 19 至 60 VDC。請勿混用電源的極性。

	0.17 A @ 48 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Weight	EDS-408A, EDS-408A-MM-SC/MM-ST/SS-SC/EIP/PN models: 650 g (1.44 lb) EDS-408A-3M-SC/3M-ST/3S-SC/3S-SC-48/1M2S-SC/2M1S-SC models: 890 g (1.97 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	Standard Models: -10 to 60°C (14 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)

Standards and Certifications

Safety	All models: UL 508 EDS-408A/408A-T, EDS-408A-MM-SC/MM-ST/SS-SC models, EDS-EIP/PN models: UL 6095-01. EN 62368-1
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: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Hazardous Locations	EDS-408A, EDS-408A-MM-SC/MM-ST/SS-SC/EIP/PN models: ATEX, Class I Division 2, IECEx
Railway	EN 50121-4
Traffic Control	EDS-408A, EDS-408A-MM-SC/MM-ST/SS-SC/EIP/PN models: NEMA TS2
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-31
Maritime	All models, exclude EDS-408A-3S-SC-48-(T): DNV, NK, LR EDS-408A, EDS-408A-MM-SC/MM-ST/SS-SC/EIP/PN models: ABS

MTBF

Time	EDS-408A, EDS-408A-EIP/PN models: 1,339,439 hrs EDS-408A-MM-SC/MM-ST models: 1,277,138 hrs EDS-408A-SS-SC models: 1,294,561 hrs EDS-408A-3M-SC/3M-ST/3S-SC/1M2S-SC/2M1S-SC models: 1,253,072 hrs EDS-408A-3S-SC-48 models: 989,940 hrs
Standards	Telcordia (Bellcore), GB

Warranty

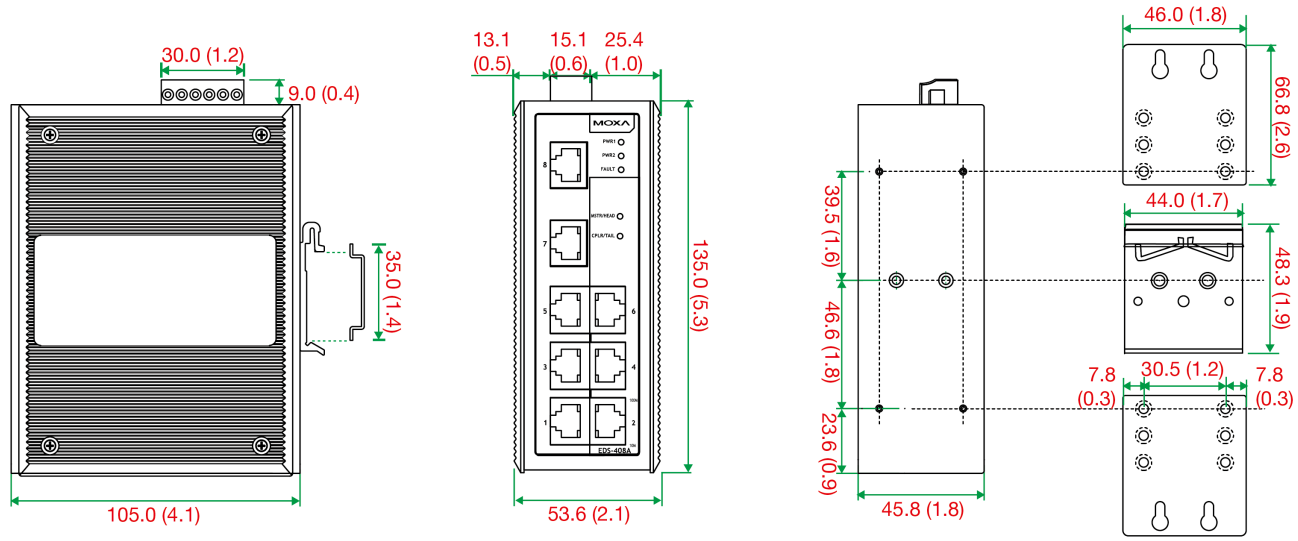
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-408A Series switch
Cable	1 x RJ45-to-DB9 console cable
Installation Kit	4 x cap, plastic, for RJ45 port
Documentation	1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x quick installation guide 1 x warranty card

尺寸

單位：公釐（英吋）



Side View | Front View | Rear View | DIN-Rail/ Panel-Mounting Kit

訂購資訊

Model Name	Layer	Total No. of Ports	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports Multi-Mode, SC Connector	100BaseFX Ports Multi-Mode, ST Connector	100BaseFX Ports Single-Mode, SC Connector	Operating Temp.
EDS-408A	2	8	8	–	–	–	-10 to 60°C
EDS-408A-T	2	8	8	–	–	–	-40 to 75°C
EDS-408A-MM-ST	2	8	6	–	2	–	-10 to 60°C
EDS-408A-MM-ST-T	2	8	6	–	2	–	-40 to 75°C

Model Name	Layer	Total No. of Ports	10/100BaseT(X) Ports RJ45 Connector	100BaseFX Ports Multi-Mode, SC Connector	100BaseFX Ports Multi-Mode, ST Connector	100BaseFX Ports Single-Mode, SC Connector	Operating Temp.
EDS-408A-MM-SC	2	8	6	2	–	–	-10 to 60°C
EDS-408A-MM-SC-T	2	8	6	2	–	–	-40 to 75°C
EDS-408A-SS-SC	2	8	6	–	–	2	-10 to 60°C
EDS-408A-SS-SC-T	2	8	6	–	–	2	-40 to 75°C
EDS-408A-3M-ST	2	8	5	–	3	–	-10 to 60°C
EDS-408A-3M-ST-T	2	8	5	–	3	–	-40 to 75°C
EDS-408A-3M-SC	2	8	5	3	–	–	-10 to 60°C
EDS-408A-3M-SC-T	2	8	5	3	–	–	-40 to 75°C
EDS-408A-3S-SC	2	8	5	–	–	3	-10 to 60°C
EDS-408A-3S-SC-T	2	8	5	–	–	3	-40 to 75°C
EDS-408A-3S-SC-48	2	8	5	–	–	3	-10 to 60°C
EDS-408A-3S-SC-48-T	2	8	5	–	–	3	-40 to 75°C
EDS-408A-1M2S-SC	2	8	5	1	–	2	-10 to 60°C
EDS-408A-1M2S-SC-T	2	8	5	1	–	2	-40 to 75°C
EDS-408A-2M1S-SC	2	8	5	2	–	1	-10 to 60°C
EDS-408A-2M1S-SC-T	2	8	5	2	–	1	-40 to 75°C
EDS-408A-EIP	2	8	8	–	–	–	-10 to 60°C
EDS-408A-EIP-T	2	8	8	–	–	–	-40 to 75°C
EDS-408A-PN	2	8	8	–	–	–	-10 to 60°C
EDS-408A-PN-T	2	8	8	–	–	–	-40 to 75°C

配件（選購）

Storage Kits

ABC-01	Configuration backup and restoration tool for managed Ethernet switches and AWK Series wireless APs/bridges/clients, 0 to 60°C operating temperature

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
NDR-120-48	120 W/2.5 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-240-48	240 W/5.0 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
MDR-40-24	DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature
MDR-60-24	DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature

Software

LIC-MXviewOne-NEW-XN-SR	MXview One node license with customizable node quantity (minimum 1 node)

Wall-Mounting Kits

WK-46-01	Wall-mounting kit, 2 plates, 8 screws, 46 x 66.8 x 2 mm

Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit

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