

EDS-405A 系列

5 埠入門級網管型以太網路交換器



特色與優點

- 支援 Turbo Ring 和 Turbo Chain (復原時間 < 20 ms @250 台交換機)、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 / 序列主控台、Windows 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，簡易可視化的工業網路管理

認證



簡介

EDS-405A 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，像是：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告警。Turbo Ring 可以使用網頁管理介面或是在 EDS-405A 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 以不同策略指派 IP 位址
- 支援 EtherNet/IP、Modbus TCP 和 PROFINET1 通訊協定的設備管理和監控
- 提供 EtherNet/IP EDS (電子資料表) 檔案、自訂 AOI (附加說明) 及 FactoryTalk® 可視化面板
- 可提供 PROFINET GSDML 檔案及 SIMATIC STEP 7 設備圖示²
- 連接埠鏡像可用於線上除錯
- 以連接埠為基礎的 VLAN、IEEE 802.1Q VLAN 以及 GVRP，可簡化網路規劃
- QoS (IEEE 802.1p 和 TOS/DiffServ) 提高網路穩定性
- 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
- 頻寬管理可預防無法預測的網路狀態

規格

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-405A, 405A-EIP/PN/PTP Series: 5 EDS-405A-MM-SC/MM-ST/SS-SC Series: 3 All models support: Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
100BaseFX Ports (multi-mode SC connector)	EDS-405A-MM-SC Series: 2
100BaseFX Ports (multi-mode ST connector)	EDS-405A-MM-ST Series: 2
100BaseFX Ports (single-mode SC connector)	EDS-405A-SS-SC Series: 2

1. 僅支援 EtherNet/IP、Modbus TCP 和 PROFINET EDS-405A-PN 系列
2. 僅支援 EDS-405A-PN 系列

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
<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) > dispersion penalty (dB) + total link loss (dB).</p>				

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
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Ethernet Software Features	
Filter	802.1Q VLAN, GMRP, GVRP, IGMP v1/v2, Port-based VLAN
Industrial Protocols	EtherNet/IP ³ , Modbus TCP EDS-405A-PN Series: PROFINET IO Device (Slave)
Management	Back Pressure Flow Control, BOOTP, DHCP Option 66/67/82, DHCP Server/Client, Flow control, IPv4/IPv6, LLDP, Port Mirror, 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
Time Management	All models: NTP Server/Client, SNTP EDS-405A-PTP Series: IEEE 1588v2 PTP (hardware-based)

Switch Properties	
IGMP Groups	256
MAC Table Size	EDS-405A Series, EDS-405A-EIP/MM-SC/MM-ST/PN/SS-SC Series: 2 K EDS-405A-PTP Series: 8 K
Max. No. of VLANs	64
Packet Buffer Size	1 Mbits
Priority Queues	4
VLAN ID Range	VID 1 to 4094

3. EDS-405A-EIP 系列：預設使用 EtherNet/IP 通訊協定。

Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 10-pin RJ45 (19200, n, 8, 1)
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DIP Switch Configuration

Ethernet Interface	Turbo Ring, Master, Coupler, Reserve
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Input/Output Interface

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

Input Voltage	12/24/48 VDC, Redundant dual inputs
Operating Voltage	9.6 to 60 VDC
Input Current	EDS-405A/405A-T, EDS-405A-EIP/PN Series: 0.21 A @ 24 VDC Fiber models: 0.26 A @ 24 VDC PTP models: 0.23 A @ 24 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Connection	1 removable 6-contact terminal block(s)

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-405A-EIP/MM-SC/MM-ST/PN/SS-SC Series: 650 g (1.44 lb) EDS-405A-PTP Series: 820 g (1.81 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 non-PTP models: UL 60950-1
EMC	EN 55032/24
EMI	CISPR 32, FCC Part 15B Class A
EMS	Non-PTP models: IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 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 PTP models: IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 3 V/m IEC 61000-4-4 EFT: Power: 0.5 kV; Signal: 0.5 kV IEC 61000-4-5 Surge: Power: 0.5 kV; Signal: 1 kV

	IEC 61000-4-6 CS: 3 V IEC 61000-4-8
Hazardous Locations	Non-PTP models: ATEX, Class I Division 2
Maritime	Non-PTP models: DNV-GL
Traffic Control	Non-PTP models: NEMA TS2
Freefall	IEC 60068-2-31
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	EDS-405A/405A-T, EDS-405A-EIP/PN Series: 1,547,941 hrs EDS-405A-MM-SC/MM-ST/SS-SC Series: 1,429,327 hrs EDS-405A-PTP Series: 1,316,464 hrs
Standards	Telcordia (Bellcore), GB

Warranty

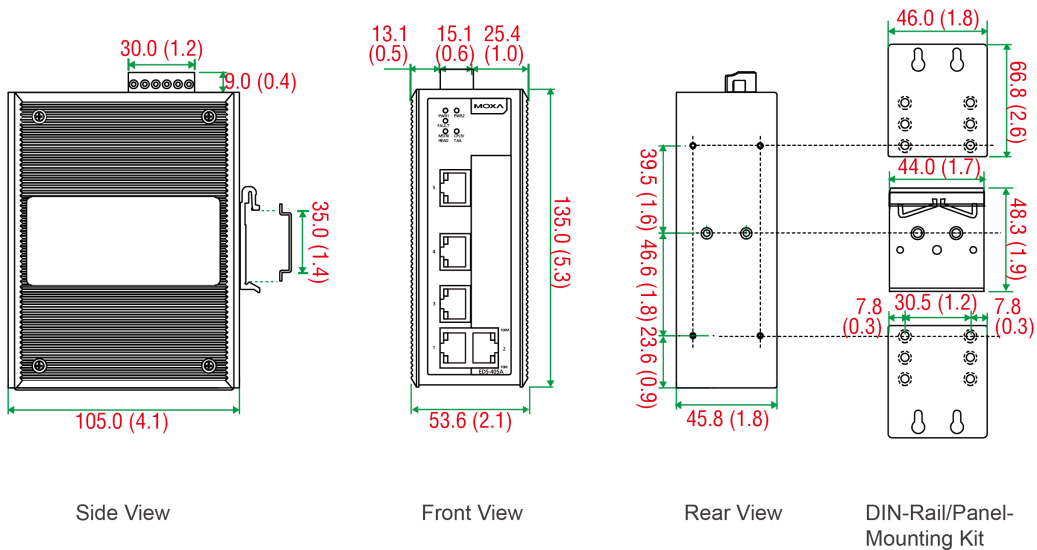
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-405A Series switch
Cable	1 x RJ45-to-DB9 console cable
Installation Kit	2 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）



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-405A	2	5	5	-	-	-	-10 to 60°C
EDS-405A-T	2	5	5	-	-	-	-40 to 75°C
EDS-405A-MM-ST	2	5	3	-	2	-	-10 to 60°C
EDS-405A-MM-ST-T	2	5	3	-	2	-	-40 to 75°C
EDS-405A-MM-SC	2	5	3	2	-	-	-10 to 60°C
EDS-405A-MM-SC-T	2	5	3	2	-	-	-40 to 75°C
EDS-405A-SS-SC	2	5	3	-	-	2	-10 to 60°C
EDS-405A-SS-SC-T	2	5	3	-	-	2	-40 to 75°C
EDS-405A-EIP	2	5	5	-	-	-	-10 to 60°C
EDS-405A-EIP-T	2	5	5	-	-	-	-40 to 75°C
EDS-405A-PN	2	5	5	-	-	-	-10 to 60°C
EDS-405A-PN-T	2	5	5	-	-	-	-40 to 75°C
EDS-405A-PTP	2	5	5	-	-	-	-10 to 60°C
EDS-405A-PTP-T	2	5	5	-	-	-	-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
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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
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

Wall-Mounting Kits

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

RK-4U	19-inch rack-mounting kit
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Software

MXview-50	Industrial network management software with a license for 50 nodes (by IP address)
MXview-100	Industrial network management software with a license for 100 nodes (by IP address)
MXview-250	Industrial network management software with a license for 250 nodes (by IP address)
MXview-500	Industrial network management software with a license for 500 nodes (by IP address)

MXview-1000	Industrial network management software with a license for 1000 nodes (by IP address)
MXview-2000	Industrial network management software with a license for 2000 nodes (by IP address)
MXview Upgrade-50	License expansion of MXview industrial network management software by 50 nodes (by IP address)

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