

EDS-205A 系列

5 埠小巧非網管型乙太網路交換器



特色與優點

- 10/100BaseT(X) (RJ45 連接器) 、100BaseFX (多 / 單模式、SC 或 ST 連接器)
- 雙備援 12/24/48 VDC 電源輸入
- IP30 鋁製外殼
- 堅固耐用的硬體設計，非常適合環境嚴苛場域應用 (Class 1 Div. 2/ATEX Zone 2)、運輸應用 (NEMA TS2/EN 50121-4) 以及海事環境 (DNV/LR/ABS/NK)
- -40 至 75°C 寬操作溫度範圍 (-T 型號)
- 符合 PROFINET 一致性等級 A¹

認證



簡介

EDS-205A 系列 5 埠工業級乙太網路交換器支援 IEEE 802.3 和 IEEE 802.3u/x，具有 10/100M、全/半雙工、MDI/MDI-X 自動感測功能。EDS-205A 系列具有 12/24/48 VDC (9.6至 60 VDC) 備援電源輸入，可同時連接至直流電源。此系列交換器專為嚴苛工業環境所設計，例如海事 (DNV/LR/ABS/NK)、軌道沿線、高速公路或行動應用 (EN 50121-4/NEMA TS2)，或危險場所 (Class I Div. 2, ATEX Zone 2, IECEx)，並且符合 FCC、UL 和 CE 標準。

EDS-205A 交換器提供可運作於 -10 至 60°C 的標準溫度型號和運作於 -40至 75°C 的寬溫型號，所有型號都經過 100% 的燒機測試，確保符合工業自動化控制應用的特殊需求。此外，EDS-205A 交換器具有 DIP 開關，用於啟用或停用廣播風暴保護與服務品質功能，提高工業應用的靈活性。

EDS-205A 系列也符合 PROFINET 一致性等級 A (CC-A)，使這些交換器適用於 PROFINET 網路。

規格

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-205A/205A-T: 5 EDS-205A-M-SC/M-ST/S-SC Series: 4 All models support: Auto negotiation speed Full/half duplex mode Auto MDI/MDI-X connection
100BaseFX Ports (multi-mode SC connector)	EDS-205A-M-SC Series: 1
100BaseFX Ports (multi-mode ST connector)	EDS-205A-M-ST Series: 1
100BaseFX Ports (single-mode SC connector)	EDS-205A-S-SC Series: 1

1. 僅限硬體版本 3.0.0 或更高版本的型號。

Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control																																																																																																																		
Optical Fiber	<table><tr><th colspan="2" rowspan="2"></th><th colspan="4">100BaseFX</th></tr><tr><th colspan="4">Multi-Mode</th></tr><tr><th colspan="2">Fiber Cable Type</th><th>OM1</th><th>OM2</th><th>OM3</th><th>OM4</th></tr><tr><th colspan="2">Typical Distance</th><td>4 km</td><td>4 km</td><td>4 km</td><td>4 km</td></tr><tr><th rowspan="2">Wavelength</th><th>TX Range (nm)</th><td colspan="4">1260 to 1360</td></tr><tr><th>RX Range (nm)</th><td colspan="4">1100 to 1600</td></tr><tr><th rowspan="4">Optical Power</th><th>TX Range (dBm)</th><td colspan="4">-10 to -20</td></tr><tr><th>RX Range (dBm)</th><td colspan="4">-3 to -32</td></tr><tr><th>Link Budget (dB)</th><td colspan="4">12</td></tr><tr><th>Dispersion Penalty (dB)</th><td>3</td><td>3</td><td>3</td><td>3</td></tr><tr><th colspan="2" rowspan="2"></th><th colspan="4">100BaseFX</th></tr><tr><th colspan="2">Multi-Mode</th><th colspan="2">Single-Mode</th></tr><tr><th colspan="2" rowspan="2">Fiber Cable Type</th><th colspan="2">50/125 μm</th><th colspan="2" rowspan="2">G.652</th></tr><tr><th colspan="2">800 MHz x km</th></tr><tr><th colspan="2">Typical Distance</th><td colspan="2">5 km</td><td colspan="2">40 km</td></tr><tr><th rowspan="2">Wavelength</th><th>TX Range (nm)</th><td colspan="2">1260 to 1360</td><td colspan="2">1280 to 1340</td></tr><tr><th>RX Range (nm)</th><td colspan="2">1100 to 1600</td><td colspan="2">1100 to 1600</td></tr><tr><th rowspan="4">Optical Power</th><th>TX Range (dBm)</th><td colspan="2">-10 to -20</td><td colspan="2">0 to -5</td></tr><tr><th>RX Range (dBm)</th><td colspan="2">-3 to -32</td><td colspan="2">-3 to -34</td></tr><tr><th>Link Budget (dB)</th><td colspan="2">12</td><td colspan="2">29</td></tr><tr><th>Dispersion Penalty (dB)</th><td colspan="2">3</td><td colspan="2">1</td></tr></table> Note: When using a 40 km single-mode fiber transceiver over short distances, we highly recommend installing an attenuator to prevent damaging the transceiver due to excessive optical power. Note: To reach the "typical distance" of a fiber transceiver, the Link Budget (dB) should be greater than the combined Dispersion Penalty (dB) and Total Link Loss (dB).							100BaseFX				Multi-Mode				Fiber Cable Type		OM1	OM2	OM3	OM4	Typical Distance		4 km	4 km	4 km	4 km	Wavelength	TX Range (nm)	1260 to 1360				RX Range (nm)	1100 to 1600				Optical Power	TX Range (dBm)	-10 to -20				RX Range (dBm)	-3 to -32				Link Budget (dB)	12				Dispersion Penalty (dB)	3	3	3	3			100BaseFX				Multi-Mode		Single-Mode		Fiber Cable Type		50/125 μm		G.652		800 MHz x km		Typical Distance		5 km		40 km		Wavelength	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	
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Switch Properties

MAC Table Size	2 K
Packet Buffer Size	768 kbits
Processing Type	Store and Forward

Power Parameters

Connection	1 removable 4-contact terminal block(s)
Input Current	0.29 A (max.)
Input Voltage	12/24/48 VDC Redundant dual inputs
Operating Voltage	9.6 to 60 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

DIP Switch Configuration

Ethernet Interface	Broadcast storm protection Quality of Service (QoS) ²
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Physical Characteristics

Housing	Aluminum
IP Rating	IP30
Dimensions	30 x 115 x 70 mm (1.18 x 4.52 x 2.76 in)
Weight	175 g (0.39 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

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: 1 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Safety	UL 61010-1 UL 61010-2-201 UL 62368 EN 62368-1
Hazardous Locations	IECEx ATEX Class I Division 2
Maritime	ABS LR NK DNV

2. 啟用 QoS DIP 開關也會同時啟用多點傳播過濾，這將封鎖 LLDP 和 PROFINET PTCP-Delay 流量。

Railway	EN 50121-4
Traffic Control	NEMA TS2
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Freefall	IEC 60068-2-31

MTBF

Time	EDS-205A models: 3,969,664 hrs EDS-205A-M-SC models: 3,500,324 hrs EDS-205A-S-SC models: 2,797,013 hrs EDS-205A-M-ST models: 3,293,423 hrs
Standards	Telcordia (Bellcore), GB

Warranty

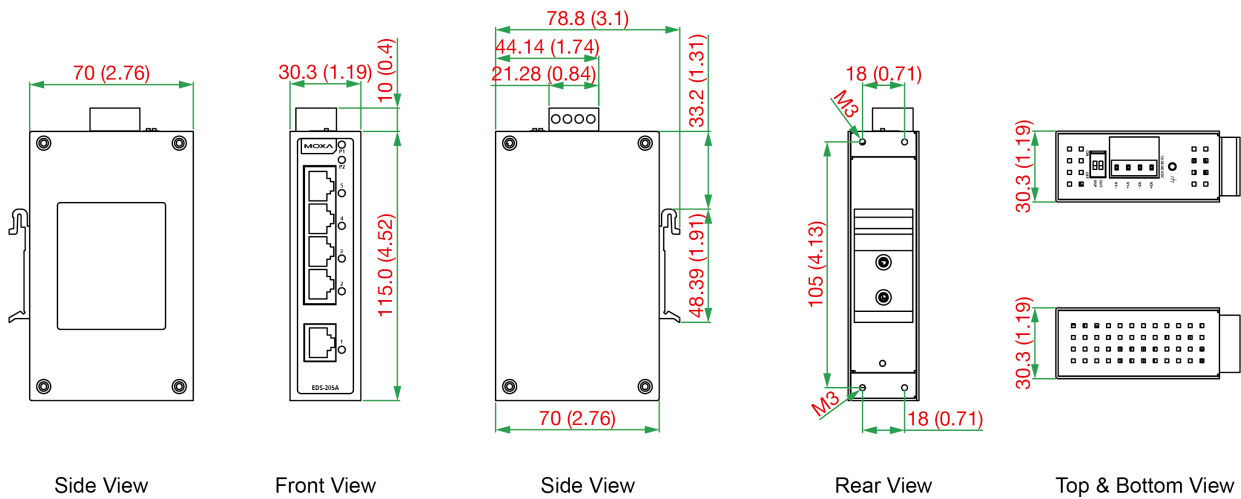
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-205A Series switch
Documentation	1 x quick installation guide 1 x warranty card

尺寸

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 Multi-Mode, ST Connector	100BaseFX Ports Single-Mode, SC Connector	Operating Temp.
EDS-205A	5	–	–	–	-10 to 60°C
EDS-205A-T	5	–	–	–	-40 to 75°C
EDS-205A-M-SC	4	1	–	–	-10 to 60°C
EDS-205A-M-SC-T	4	1	–	–	-40 to 75°C
EDS-205A-M-ST	4	–	1	–	-10 to 60°C

Model Name	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-205A-M-ST-T	4	–	1	–	–40 to 75°C
EDS-205A-S-SC	4	–	–	1	–10 to 60°C
EDS-205A-S-SC-T	4	–	–	1	–40 to 75°C

配件（選購）

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

Wall-Mounting Kits

WK-30	Wall-mounting kit, 2 plates, 4 screws, 30 x 66.8 x 2 mm
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Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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