

EDS-P510 系列

7+3G 埠 Gigabit PoE+ 網管型乙太網路交換器含 4 個 IEEE 802.3af PoE 連接埠



特色與優點

- 4 個符合 IEEE 802.3af 標準的 PoE 和乙太網路複合連接埠
- 每個 PoE 連接埠在 48 VDC 時可提供最高 15.4 瓦電力
- 智慧耗電量偵測、PD 故障檢查以及 PoE 排程功能。
- 3 個複合 (10/100/1000BaseT(X) 或 100/1000BaseSFP 插槽) Gigabit 連接埠；2 個用於備援環網的連接埠以及 1 個用於 uplink 的連接埠
- 支援 Turbo Ring 和 Turbo Chain (復原時間 <20 毫秒 @ 250 台交換器)，以及透過 RSTP/STP 和 MSTP 協議支援網路備援
- 支援 Mxstudio 以進行輕鬆、虛擬化的工業網路管理
- V-ON™ 可確保毫秒等級的 multicast 資料和視訊網路復原

認證



簡介

EDS-P510 系列 Gigabit 網管型備援乙太網路交換器有 4 個 10/100BaseT(X) 802.3af (PoE) 相容的乙太網路連接埠以及 3 個複合 Gigabit 乙太網路連接埠。EDS-P510 交換器每 PoE 連接埠可提供高達 15.4 瓦電力，並且在不易取得交流電源或當地供應成本過高時，提供 PoE 電力至連接裝置 (例如監控攝影機、無線存取點以及 IP 電話)。EDS-P510 交換器用途極為廣泛，其 SFP 光纖連接埠可將資料從裝置傳輸至控制中心 (最遠可達 80 公里)，並且具有高度 EMI 抗擾性。乙太網路交換器支援先進的管理與安全功能。EDS-P510 系列是專門為安全自動化應用 (例如 IP 監控和進入系統閘門) 所設計，此類應用能夠藉由可擴充的骨幹結構與 PoE 獲益。

附加特色與優點

- 進階 PoE 管理功能 (PoE 連接埠設定、PD 故障檢查以及 PoE 排程)
- 命令列介面 (CLI) 快速設定主要網管功能
- DHCP Option 82 依據不同的政策配置 IP 位置
- 支援 EtherNet/IP 和 Modbus TCP 通訊協定以進行裝置管理與監控
- 支援 Turbo Ring 和 Turbo Chain (復原時間 <20 毫秒 @ 250 台交換器)，以及透過 RSTP/STP 和 MSTP 協議支援網路備援
- IGMP 和 GMRP，用於篩選 multicast 流量
- 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/1Q) 和 TOS/DiffServ 以提高確定性
- Port Trunking 可提供最佳頻寬使用率
- 支援 TACACS+、IEEE 802.1X、SNMPv3、HTTPS 和 SSH，強化網路安全
- 鎖定連接埠功能可根據 MAC 位址封鎖未經授權的存取
- SNMPv1/v2c/v3，適用不同層級的網路管理
- RMON 提供有效率的網路監視與主動式功能
- 頻寬管理可預防無法預測的網路狀態
- 可用連線埠鏡像進行線上除錯
- 發生例外狀況時透過電子郵件和繼電器輸出自動發出警告

規格

Ethernet Interface

Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+)	3 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
10/100BaseT(X) Ports (RJ45 connector)	3 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection

PoE Ports (10/100BaseT(X), RJ45 connector)	4 Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
Standards	IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1Q for VLAN Tagging IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1X for authentication IEEE 802.3 for 10BaseT IEEE 802.3ab for 1000BaseT(X) IEEE 802.3ad for Port Trunk with LACP IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control IEEE 802.3z for 1000BaseSX/LX/LHX/ZX IEEE 802.3af for PoE

Ethernet Software Features

Filter	GMRP, GVRP, IGMP v1/v2, Port-based VLAN
Industrial Protocols	EtherNet/IP, Modbus TCP
Management	Back Pressure Flow Control, BOOTP, DDM, 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, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB
Redundancy Protocols	LACP, Link Aggregation, MSTP, RSTP, STP, Turbo Chain, Turbo Ring v1/v2
Security	TACACS+, HTTPS/SSL, Port Lock, RADIUS, SSH
Time Management	NTP Server/Client, SNTP

Input/Output Interface

Alarm Contact Channels	2, Relay output with current carrying capacity of 1 A @ 24 VDC
Digital Input Channels	2
Digital Inputs	-30 to +3 V for state 0 +13 to +30 V for state 1 Max. input current: 8 mA

Switch Properties

IGMP Groups	1024
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 (19200, n, 8, 1)
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DIP Switch Configuration

Ethernet Interface	Turbo Ring, Master, Coupler, Reserve
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Power Parameters

Connection	2 removable 6-contact terminal block(s)
Input Current	1.5 A @ 48 VDC
Input Voltage	48 VDC, Redundant dual inputs
Operating Voltage	44 to 57 VDC
Overload Current Protection	Supported
Power Budget	Max. 15.4 W for each PoE port Max. 61.6 W for total PD consumption
Power Consumption (Max.)	Max. 14.24 W full loading without PDs' consumption
Reverse Polarity Protection	Supported

Physical Characteristics

Dimensions	80.2 x 135 x 105 mm (3.16 x 5.31 x 4.13 in)
Housing	Metal
Installation	DIN-rail mounting, Wall mounting (with optional kit)
IP Rating	IP30
Weight	1,170 g (2.58 lb)

Environmental Limits

Ambient Relative Humidity	5 to 95% (non-condensing)
Operating Temperature	EDS-P510: 0 to 60°C (32 to 140°F) EDS-P510-T: -40 to 75°C (-40 to 167°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)

Standards and Certifications

Safety	UL 508
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: 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
Maritime	ABS, DNV-GL, LR, NK
Freefall	IEC 60068-2-31
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

MTBF

Time	205,384 hrs
Standards	Telcordia (Bellcore), GB

Warranty

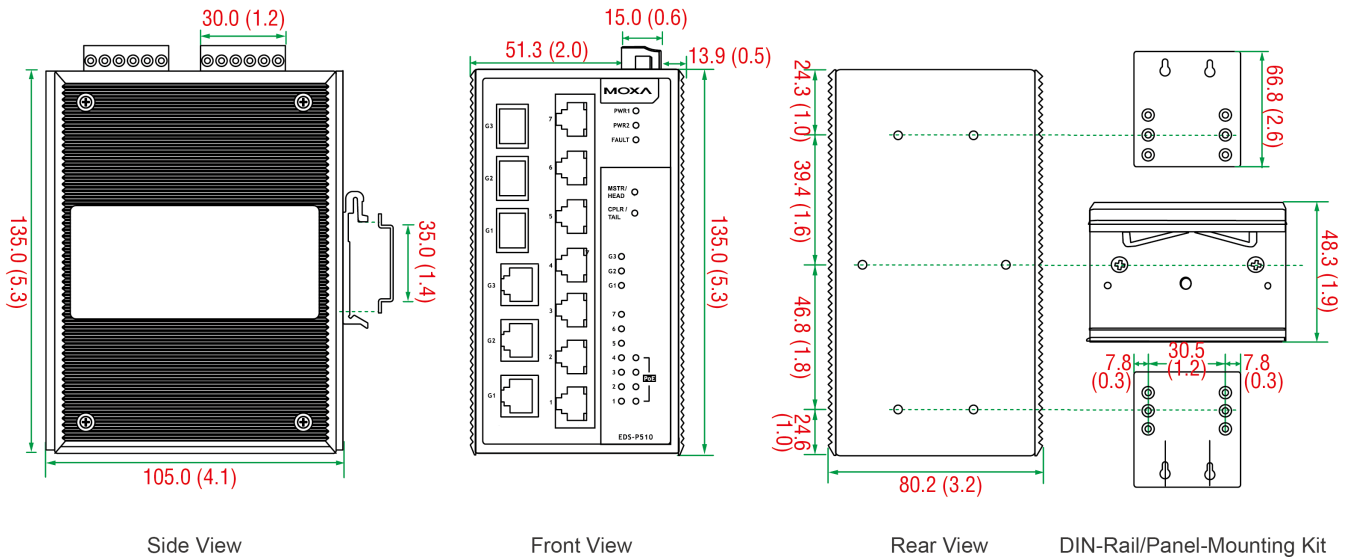
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-P510 Series switch
Cable	1 x DB9 female to RJ45 10-pin
Installation Kit	8 x cap, plastic, for RJ45 port 3 x cap, plastic, for SFP slot
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
Note	SFP modules need to be purchased separately for use with this product.

尺寸

單位：公釐（英吋）



訂購資訊

Model Name	Combo Ports 10/100/1000BaseT(X) or 100/ 1000BaseSFP	PoE Ports 10/100BaseT(X)	non-PoE Ports 10/100BaseT(X)	Operating Temp.
EDS-P510	3	4	3	-10 to 60°C
EDS-P510-T	3	4	3	-40 to 75°C

配件（選購）

Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature

SFP Modules

SFP-1FELLC-T	SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature
SFP-1FEMLC-T	SFP module with 1 100Base multi-mode with LC connector for 4 km transmission, -40 to 85°C operating temperature
SFP-1FESLC-T	SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1G10ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G10ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G10BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G10BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G20ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G20ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G20BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G20BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1G40ALC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature
SFP-1G40ALC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature
SFP-1G40BLC	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature
SFP-1G40BLC-T	WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature
SFP-1GEZXC	SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXC-120	SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature
SFP-1GLHLC-T	SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature
SFP-1GLHXC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXC	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXC-T	SFP module with 1 1000BaseLSX port with LC connector for 500 m transmission, -40 to 85°C operating temperature
SFP-1GLXLC	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature
SFP-1GLXLC-T	SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature
SFP-1GSXC	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, 0 to 60°C operating temperature
SFP-1GSXC-T	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, -40 to 85°C operating temperature
SFP-1GZXC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature

SFP-1GZXC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature
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Power Supplies

DR-120-48	120W/2.5A DIN-rail 48 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-75-48	75W/1.6A DIN-rail 48 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature
DRP-240-48	DIN-rail 48 VDC power supply with 240W/5A, 85 to 264 VAC, or 120 to 370 VDC input, -10 to 70°C operating temperature
SDR-480P-48	DIN-rail 48 VDC power supply with 480W/10A, 90 to 264 VAC, or 127 to 370 VDC input, (current sharing up to 3840 W), -25 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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