

# EDS-P510Aシリーズ

## 8つのIEEE 802.3af/at PoE+ポート付きの8+2GポートギガビットPoE+ マネージドイーサネットスイッチ



### 機能と特長

- IEEE 802.3af/atに準拠した内蔵4PoE+ポート x 8
- PoE+ポートあたり最大36 Wの出力
- 過酷な屋外環境に対する3 kVのLANサージ保護
- 電源デバイスモード解析のためのPoE診断
- 広帯域および長距離通信用ギガビットコンボポート2つ
- 240ワットのフルPoEで動作+40~75°Cでローディング
- 簡単に視覚化された産業用ネットワーク管理を行うためのMXstudioに対応
- V-ON™により、ミリ秒レベルのマルチキャストデータとビデオネットワークの回復を確実に実現

### 認証



### 製品紹介

MoxaのEDS-P510Aシリーズは、8つの10/100BaseT (X)、802.3af (PoE)、および802.3at (PoE+) 準拠イーサネットポート、および2つのコンボギガビットイーサネットポートを備えています。EDS-P510A-8PoEイーサネットスイッチは、標準モードでPoE+ポートあたり最大30ワットの電力を提供し、ワイパー/ヒーターを備えた耐候性IP監視カメラ、高性能無線アクセスポイント、およびIP電話のような産業用大型PoEデバイスで最大36Wの高出力を可能にします。EDS-P510Aイーサネットスイッチは汎用性が高く、SFPファイバポートはEMI耐性の高い装置から制御センターへ最大120 kmのデータを送信できます。

イーサネットスイッチは、STP/RSTP、Turbo Ring、Turbo Chain、PoE電力管理、PoEデバイス自動チェック、PoE電力スケジューリング、PoE診断、IGMP、VLAN、QoS、RMON、帯域幅管理、およびポートミラーリングに加え、さまざまな管理機能をサポートします。EDS-P510Aシリーズは、PoEシステムの信頼性を向上させるために、過酷な屋外アプリケーション向けに3 kVサージ保護を使用して設計されています。

### その他の機能とメリット

- さまざまなPoE出力設定（高出力36 W、強制およびレガシーモード）をサポートし、電力供給デバイスの互換性を最大化
- スマートPoE機能（PoE診断、PD障害チェック、PoEスケジューリング、PoEイベント警告）をサポートし、PoEの運用効率を向上
- 主なマネージド機能をすばやく構成するためのコマンドラインインターフェース（CLI）
- 各ポリシーに応じてIPアドレスを割り当てるDHCP Option 82
- デバイスの管理および監視用のEtherNet/IPおよびModbus TCPプロトコルをサポート
- Turbo RingおよびTurbo Chain（リカバリ時間はスイッチ250台で20ミリ秒未満）、RSTP/STP、およびMSTPでネットワーク冗長性を実現
- トランスペアレントデータ伝送のためのPROFINETプロトコルとの互換性
- マルチキャストトラフィックをフィルタリングするIGMPスヌーピングおよびGMRP
- ポートベースのVLAN、IEEE 802.1Q VLAN、GVRPでネットワークブランチングを簡素化
- 可用性を向上させるQoS（IEEE 802.1p/1QおよびTOS/DiffServ）
- 最適な帯域幅利用のためのポートランキング
- TACACS+、IEEE 802.1x、SNMPv3、HTTPS、およびSSHで、ネットワークセキュリティを強化
- 不正アクセスをブロックするためのMACアドレスによるポートロック機能
- 異なるレベルのネットワーク管理を実現するSNMPv1/v2c/v3
- プロアクティブで効率の高いネットワーク監視のためのRMON
- 想定外のネットワーク状況を防ぐ帯域幅管理
- オンラインデバッグ用のポートミラーリング
- メールとリレー出力を通じた例外検出による自動警告

1. ギガビットイーサネットのリカバリ時間50ミリ秒未満をサポートし、

## 仕様

### Ethernet Interface

Combo Ports (10/100/1000BaseT(X) or 100/1000BaseSFP+)	2 Full/Half duplex mode Auto MDI/MDI-X connection Auto negotiation speed
PoE Ports (10/100BaseT(X), RJ45 connector)	8 Full/Half duplex mode Auto MDI/MDI-X connection Auto negotiation speed
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 802.3af/at for PoE/PoE+ output IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control IEEE 802.3z for 1000BaseSX/LX/LHX/ZX

### 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, Fiber check, 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	HTTPS/SSL, Port Lock, RADIUS, TACACS+, SSH
Time Management	NTP Server/Client, SNTP

### 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 (115200, 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	1, Relay output with current carrying capacity of 0.5 A @ 48 VDC
Digital Input Channels	1
Digital Inputs	Max. input current: 8 mA +13 to +30 V for state 1 -30 to +3 V for state 0

## Power Parameters

Input Voltage	48 VDC, Redundant dual inputs
Operating Voltage	44 to 57 VDC
Input Current	5.36 A @ 48 VDC
Power Consumption (Max.)	Max. 17.28 W full loading without PDs' consumption
Power Budget	Max. 240 W for total PD consumption Max. 36 W for each PoE port
Connection	2 removable 2-contact terminal block(s)
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

## Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	79.2 x 135 x 105 mm (3.12 x 5.31 x 4.13 in)
Weight	1030 g (2.28 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

## Environmental Limits

Operating Temperature	EDS-P510A-8PoE-2GTXSFP: -10 to 60°C (14 to 140°F) EDS-P510A-8PoE-2GTXSFP-T: -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	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: 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 PFMF
Hazardous Locations	Class I Division 2
Railway	EN 50121-4
Traffic Control	NEMA TS2

Freefall	IEC 60068-2-31
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6

#### MTBF

Time	708,972 hrs
Standards	Telcordia (Bellcore), GB

#### Warranty

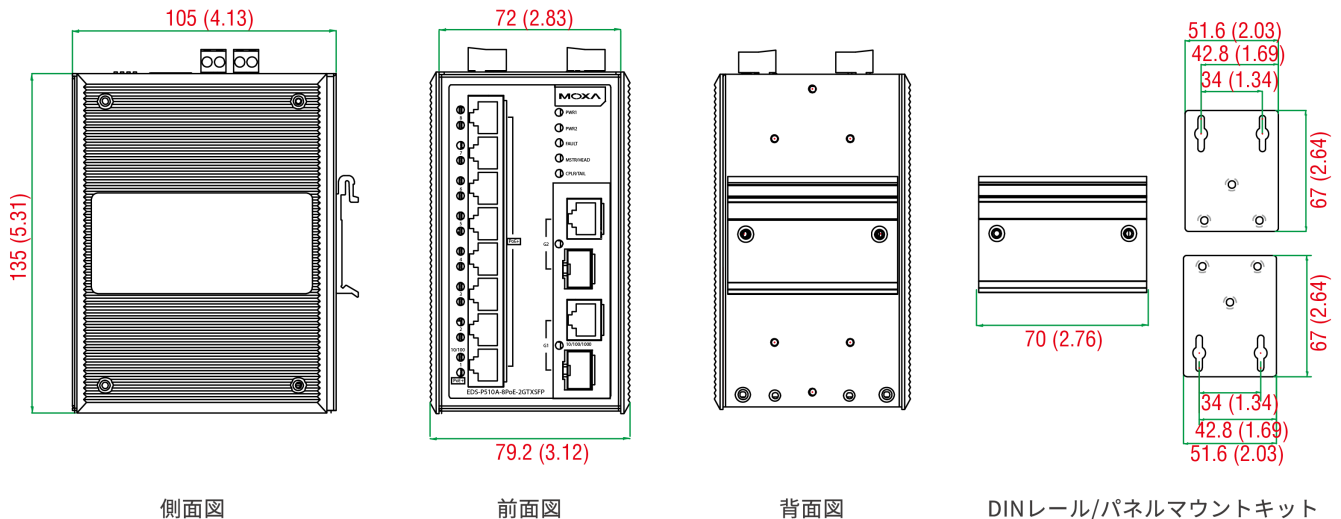
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/jp/warranty">www.moxa.com/jp/warranty</a>

#### Package Contents

Device	1 x EDS-P510A Series switch
Cable	1 x DB9 female to RJ45 10-pin
Installation Kit	4 x cap, plastic, for RJ45 port 2 x cap, plastic, for SFP slot
Documentation	1 x quick installation guide 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese 1 x warranty card
Note	SFP modules need to be purchased separately for use with this product.

## 寸法

単位: mm (インチ)



## 注文情報

Model Name	Combo Ports 10/100/1000BaseT(X) or 100/ 1000BaseSFP+	PoE Ports 10/100BaseT(X), RJ45 Connector	Operating Temp.
EDS-P510A-8PoE-2GTXSFP	2	8	-10 to 60°C
EDS-P510A-8PoE-2GTXSFP-T	2	8	-40 to 75°C

## アクセサリ（別売）

### 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, LC connector for 2/4 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-1GEZXLC	SFP module with 1 1000BaseEZX port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZX 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-1GLHXLC	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature
SFP-1GLHXLC-T	SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature
SFP-1GLSXLC	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature
SFP-1GLSXLC-T	SFP module with 1 1000BaseLSX port with LC connector for 1km/2km 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-1GSXLC	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature
SFP-1GZXLC	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature
SFP-1GZXLC-T	SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature

### 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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