

EDS-828 系列

24+4G 埠 Layer 3 Gigabit 模組化網管型乙太網路交換器



特色與優點

- 4 個 Gigabit 連接埠和 24 個快速乙太網路連接埠，適用於銅質纜線和光纖纜線
- 支援 Turbo Ring 和 Turbo Chain (對於 250 台交換器斷線復連時間小於 20 毫秒)¹、RSTP/STP 和 MSTP 網路備援
- 支援 TACACS+、SNMPv3、IEEE 802.1X、HTTPS 和 SSH，強化網路安全
- 透過網頁瀏覽器、CLI、Telnet / 序列主控台、Windows 管理工具和 ABC-01 輕鬆管理網路
- Layer3 路由互連多個 LAN 區段
- 支援 MXstudio，輕鬆實現可視化的工業網路管理

認證



簡介

EDS-828 系列採用多功能的模組化設計，可搭配不同的光纖和銅線模組組合，可以組建各種連線模式，靈活適用於所有自動應用網路。模組化設計可讓您安裝多達 4 個 Gigabit 連接埠和 24 個快速乙太網路連接埠。EDS-828 系列是針對 Gigabit 網路骨幹備援所特別設計，利用模組化配置為網路擴充提供高度彈性。透過 EDS-828 的進階管理和安全特性，將可確保頂級的網路效能、安全性與可靠性。

EDS-828 系列也具備工業級結構，包括可用於自動配置備份的主控台連接埠，以及從水平和垂直視角都可輕鬆查看的多角度 LED 故障排除面板。除了 Layer 2 特性外，EDS-828 系列是針對網路路由所設計的高效能 Layer 3 乙太網路交換器。EDS-828 系列中所內建的硬體改善技術取代了傳統路由器所使用的軟體邏輯，不僅提供更高的效能，使其成為大規模區域網路 (LAN) 的理想選擇。

附加特色與優點

- Layer 3 交換功能可跨網傳送資料和資訊
- 命令列介面 (CLI) 快速設定主要網管功能
- 透過 Q-in-Q 標籤支援進階 VLAN 功能
- 軟體型 IEEE 1588 PTPv2 (精確時間協定) 可提供精確的網路時間同步
- DHCP Option 82 以不同原則指派 IP 位址
- 支援 EtherNet/IP 和 Modbus TCP 通訊協定以進行設備管理和監控
- 相容於 PROFINET 通訊協定以進行透過式數據傳輸
- IGMP snooping 和 GMRP，用於過濾多點播送流量
- IEEE 802.1Q VLAN 以及 GVRP 通訊協定，可簡化網路規劃
- 數位輸入可將感應器和警告整合至 IP 網路
- QoS (IEEE 802.1p/1Q 和 TOS/DiffServ) 提高資料傳送穩定性
- Port Trunking 可將頻寬使用率最佳化
- 存取控制清單 (ACL) 可增加網路管理的彈性與安全性
- SNMPv1/v2c/v3，支援不同層級的網路管理
- RMON 提供主動且有效率的網路監控
- 頻寬管理可預防不穩定的網路狀態出現
- 連接埠鎖定功能可依據 MAC 位址封鎖未經授權的存取
- Port mirroring 可用於線上除錯
- 發生狀況時可透過電子郵件或是繼電器輸出自動發出告警
- 可透過網頁瀏覽器、Telnet / 序列主控台、CLI、Windows 管理工具，以及 ABC-01 自動備份配置器進行配置設定
- 備援雙直流 (DC) 電源輸入

1. Gigabit 乙太網路斷線復連時間小於 50 毫秒

規格

Input/Output Interface

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

Ethernet Interface

Module	6 slots for any combination of 4-port interface modules, 10/100BaseT(X) or 100BaseFX; 2 slots for any combination of 2-port interface modules, 10/100/1000BaseT(X) or 1000BaseSFP
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 1000BaseX

Ethernet Software Features

Filter	GMRP, GVRP, IGMP v1/v2, QinQ 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, 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
Multicast Routing	DVMRP, PIM-DM
Redundancy Protocols	Link Aggregation, MSTP, RSTP, STP, Turbo Chain, Turbo Ring v1/v2
Routing Redundancy	VRRP
Security	Access control list, Broadcast storm protection, HTTPS/SSL, Port Lock, RADIUS, SSH, TACACS+
Time Management	NTP Server/Client, SNTP
Filter	VLAN unaware, 802.1Q VLAN
Unicast Routing	OSPF, RIPv1/V2, Static Route

Switch Properties

IGMP Groups	256
MAC Table Size	16 K
Max. No. of VLANs	64
Packet Buffer Size	32 Mbits

Priority Queues	4
VLAN ID Range	VID 1 to 4094
Serial Interface	
Console Port	RS-232 (TxD, RxD, GND), 8-pin RJ45 (115200, n, 8, 1)
Power Parameters	
Connection	2 removable 6-contact terminal block(s)
Input Current	0.82 A @ 24 VDC
Input Voltage	24 VDC, Redundant dual inputs
Operating Voltage	12 to 45 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Physical Characteristics	
IP Rating	IP30
Dimensions	362.4 x 142.5 x 128 mm (14.27 x 5.61 x 5.04 in)
Weight	1950 g (4.30 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)
Environmental Limits	
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature (package included)	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Standards and Certifications	
Freefall	IEC 60068-2-32
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: 4 kV; Signal: 2 kV IEC 61000-4-5 Surge: Power: 2 kV; Signal: 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Maritime	ABS, DNV-GL, LR, NK
Safety	EN 60950-1, UL 508, UL 60950-1, CSA C22.2 No. 60950-1
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
MTBF	
Time	191,203 hrs
Standards	Telcordia SR332

Warranty

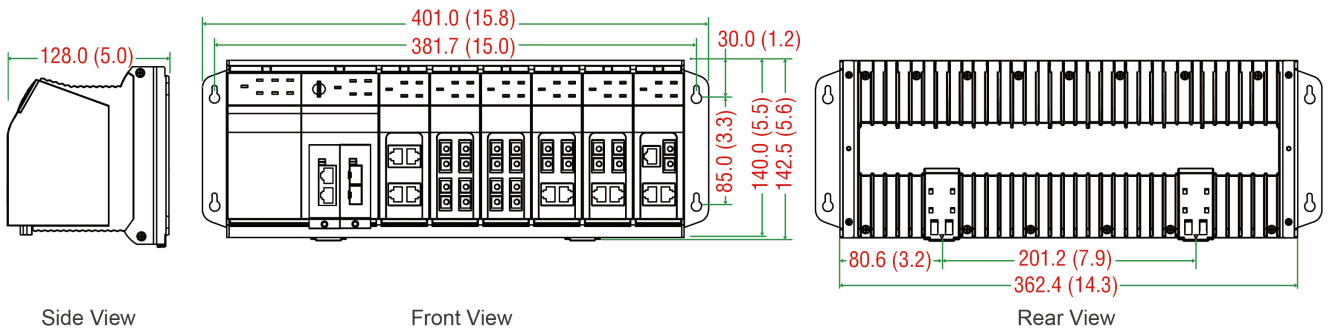
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-828 Series switch
Cable	1 x RJ45-to-DB9 console cable
Documentation	1 x document and software CD 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 and/or modules from the IM Module Series need to be purchased separately for use with this product.

尺寸

單位：公釐 (英吋)



訂購資訊

Model Name	Layer	Total No. of Ports	IM-2G Series Module 10/100/1000BaseT(X) or 1000BaseSFP	IM Series Module 10/100BaseT(X) and/or 100BaseFX	Operating Temp.
EDS-82810G	3	28	2 slots for up to 4 10/100/1000BaseT(X) or 1000BaseSFP ports	6 slots for up to 24 x 10/100BaseT(X) and/or 100BaseFX ports	0 to 60°C
EDS-82810G-4GTX	3	28	2 IM-2GTX preinstalled; 2 slots for up to 4 10/100/1000BaseT(X) or 1000BaseSFP ports	6 slots for up to 24 10/100BaseT(X) and/or 100BaseFX ports	0 to 60°C
EDS-82810G-4GSFP	3	28	2 IM-2GSFP preinstalled; 2 slots for up to 4 10/100/1000BaseT(X) or 1000BaseSFP ports	6 slots for up to 24 10/100BaseT(X) and/or 100BaseFX ports	0 to 60°C

配件 (選購)

IM Module Series

IM-1LSC/3TX	Fast Ethernet interface AC module with 3 10/100BaseT(X) ports and 1 100BaseFX single-mode port (SC connector for 80 km transmission), 0 to 60°C operating temperature
IM-2GSFP	Gigabit Ethernet interface module with 2 1000BaseSFP slots (see the SFP-1G series ordering information for available Gigabit Ethernet SFP modules), 0 to 60°C operating temperature
IM-2GTX	Gigabit Ethernet interface module with 2 10/100/1000BaseT(X) ports, 0 to 60°C operating temperature

IM-2MSC/2TX	Fast Ethernet interface module with 2 10/100BaseT(X) ports and 2 100BaseFX multi-mode ports (SC connectors), 0 to 60°C operating temperature
IM-2MST/2TX	Fast Ethernet interface module with 2 10/100BaseT(X) ports and 2 100BaseFX multi-mode ports (ST connectors), 0 to 60°C operating temperature
IM-2SSC/2TX	Fast Ethernet interface module with 2 10/100BaseT(X) ports and 2 100BaseFX single-mode ports (SC connectors), 0 to 60°C operating temperature
IM-4MSC	Fast Ethernet interface module with 4 100BaseFX multi-mode ports (SC connectors), 0 to 60°C operating temperature
IM-4MST	Fast Ethernet interface module with 4 100BaseFX multi-mode ports (ST connectors), 0 to 60°C operating temperature
IM-4SSC	Fast Ethernet interface module with 4 100BaseFX single-mode ports (SC connectors), 0 to 60°C operating temperature
IM-4TX	Fast Ethernet interface module with 4 10/100BaseT(X) ports, 0 to 60°C operating temperature

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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SFP Modules

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 1000BaseEZ port with LC connector for 110 km transmission, 0 to 60°C operating temperature
SFP-1GEZXLC-120	SFP module with 1 1000BaseEZ 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 500 m transmission, 0 to 60°C operating temperature
SFP-1GLSXLC-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-1GSXLC	SFP module with 1 1000BaseSX port with LC connector for 300/550 m transmission, 0 to 60°C operating temperature
SFP-1GSXLC-T	SFP module with 1 1000BaseSX port with LC connector for 300/550 m 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-120-24	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-32	Wall-mounting kit, 2 plates, 6 screws, 30.3 x 140 x 12.3 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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