

EDS-516A 系列

16 埠網管型乙太網路交換器



特色與優點

- 支援 Turbo Ring 和 Turbo Chain (對於 250 台交換器，復原時間 < 20 ms)，STP/RSTP/MSTP，實現網路備援
- 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 / 序列控制埠、Windows 工具程式和 ABC-01 輕鬆管理網路
- 支援 MXstudio，輕鬆進行視覺化工業網路管理

認證



簡介

EDS-516A 獨立 16 埠管理乙太網路交換器搭載先進的渦輪環和渦輪鏈技術 (復原時間 < 20 ms)、RSTP/STP，以及 MSTP，可提升工業乙太網路的可靠性和可用性。此外還提供介於 -40 至 75°C 的寬操作溫度範圍的型號，此交換器支援進階管理與安全功能，因此 EDS-516A 交換器適用於任何嚴峻工業環境。

附加特色與優點

- 命令列介面 (CLI) 快速設定主要網管功能
- DHCP Option 82 適用於以不同原則指派 IP 位址
- 支援 EtherNet/IP 和 Modbus TCP 通訊協定，以進行裝置管理和監控
- 相容於 PROFINET 通訊協定，可進行透明資料傳輸
- 鎖定連接埠功能可根據 MAC 位址封鎖未經授權的存取
- IGMP snooping 和 GMRP，用於篩選多點傳送流量
- 可基於連接埠實現 VLAN、IEEE 802.1Q VLAN 以及 GVRP，以簡化網路規劃
- QoS (IEEE 802.1p/1Q 和 TOS/DiffServ) 提高可靠性
- 網路埠端口聚合功能提供最佳頻寬使用率
- 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
- 頻寬管理可防止無法預測的網路狀態
- 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

Input/Output Interface

Alarm Contact Channels	Resistive load: 1 A @ 24 VDC
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA

Ethernet Interface

10/100BaseT(X) Ports (RJ45 connector)	EDS-516A Series: 16 EDS-516A-MM-SC/MM-ST Series: 14 All models support: Auto negotiation speed Full/Half duplex mode Auto MDI/MDI-X connection
100BaseFX Ports (multi-mode SC connector)	EDS-516A-MM-SC Series: 2
100BaseFX Ports (multi-mode ST connector)	EDS-516A-MM-ST Series: 2

Optical Fiber				100BaseFX			
				Multi-Mode		Single-Mode (40 km)	Single-Mode (80 km)
		Fiber Cable Type		OM1	50/125 μm	G.652	G.652
					800 MHz x km		
		Typical Distance		4 km	5 km	40 km	80 km
Wavelength	Typical (nm)	1300		1310	1550		
	TX Range (nm)	1260 to 1360		1280 to 1340	1530 to 1570		
	RX Range (nm)	1100 to 1600		1100 to 1600	1100 to 1600		
Optical Power	TX Range (dBm)	-10 to -20		0 to -5	0 to -5		
	RX Range (dBm)	-3 to -32		-3 to -34	-3 to -34		
	Link Budget (dB)	12		29	29		
	Dispersion Penalty (dB)	3		1	1		
Note: When connecting a single-mode fiber transceiver, we recommend using an attenuator to prevent damage caused by excessive optical power. Note: Compute the “typical distance” of a specific fiber transceiver as follows: Link budget (dB) > dispersion penalty (dB) + total link loss (dB).							

Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.1X for authentication IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1Q for VLAN Tagging IEEE 802.1p for Class of Service IEEE 802.3x for flow control IEEE 802.3ad for Port Trunk with LACP
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Ethernet Software Features

Filter	802.1Q VLAN, GMRP, GVRP, IGMP v1/v2, Port-based VLAN
Industrial Protocols	EtherNet/IP, Modbus TCP
Management	IPv4/IPv6, SNMPv1/v2c/v3, LLDP, Port Mirror, Back Pressure Flow Control, BOOTP, DDM, DHCP Option 66/67/82, DHCP Server/Client, Flow control, RARP, RMON, SMTP, SNMP Inform, Syslog, Telnet, TFTP
MIB	MIB-II, Bridge MIB, Ethernet-like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB
Redundancy Protocols	STP, MSTP, RSTP, LACP, Link Aggregation, Turbo Chain, Turbo Ring v1/v2
Security	HTTPS/SSL, RADIUS, TACACS+, Port Lock, SSH, Broadcast storm protection
Time Management	NTP Server/Client, SNTP, IEEE 1588v2 PTP (software-based)

Switch Properties

IGMP Groups	256
MAC Table Size	8 K

Max. No. of VLANs	64
Packet Buffer Size	2 Mbits
Priority Queues	4
VLAN ID Range	VID 1 to 4094

LED Interface

LED Indicators	PWR1, PWR2, FAULT, 10/100M (TP port), 100M (fiber port), MSTR/HEAD, CPLR/TAIL
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Serial Interface

Console Port	RS-232 (TxD, RxD, GND), 8-pin RJ45 (115200, 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 Voltage	24 VDC, Redundant dual inputs
Operating Voltage	12 to 45 VDC
Input Current	EDS-516A Series: 0.35 A @ 24 VDC EDS-516A-MM-SC/MM-ST Series: 0.44 A @ 24 VDC
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

Housing	Metal
IP Rating	IP30
Dimensions	94 x 135 x 142.7 mm (3.7 x 5.31 x 5.62 in)
Weight	1586 g (3.50 lb)
Installation	DIN-rail mounting, Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	Standard Models: 0 to 60°C (32 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	EN 60950-1, UL 60950-1, CSA C22.2 No. 60950-1, UL 508
Hazardous Locations	ATEX, Class I Division 2
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: 1 kV; Signal: 0.5 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	DNV-GL
Shock	IEC 60068-2-27
Vibration	IEC 60068-2-6
Freefall	IEC 60068-2-31

MTBF

Time	247,676 hrs
Standards	Telcordia (Bellcore), GB

Warranty

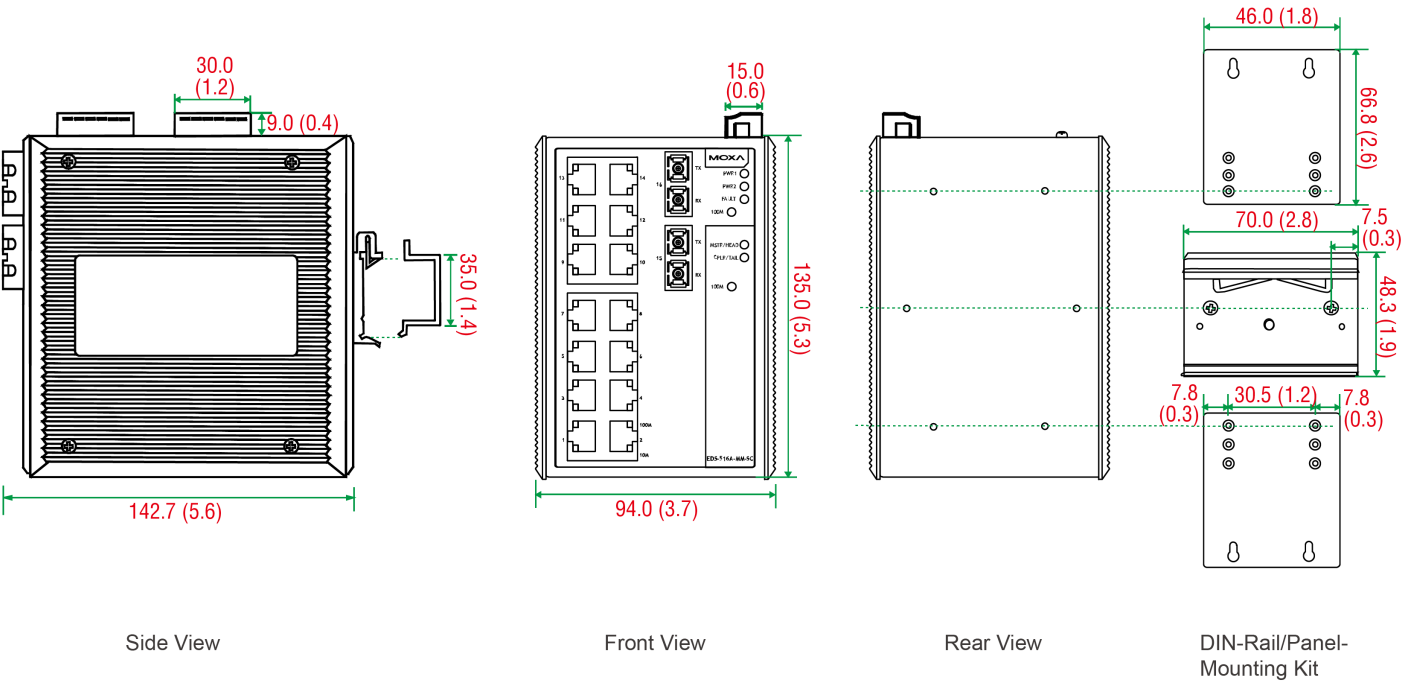
Warranty Period	5 years
Details	See www.moxa.com/tw/warranty

Package Contents

Device	1 x EDS-516A 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 SC fiber port (-SC models) 2 x cap, plastic, for ST fiber port (-ST models)
Documentation	1 x quick installation guide 1 x warranty card 1 x product certificates of quality inspection, Simplified Chinese 1 x product notice, Simplified Chinese

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	Operating Temp.
EDS-516A	16	–	–	0 to 60°C
EDS-516A-T	16	–	–	-40 to 75°C
EDS-516A-MM-SC	14	2	–	0 to 60°C
EDS-516A-MM-SC-T	14	2	–	-40 to 75°C
EDS-516A-MM-ST	14	–	2	0 to 60°C
EDS-516A-MM-ST-T	14	–	2	-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

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)

Wall-Mounting Kits

WK-46	Wall-mounting kit, 2 plates, 8 screws, 46.5 x 66.8 x 1 mm
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Rack-Mounting Kits

RK-4U	19-inch rack-mounting kit
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