

EDS-616 系列

16 埠小巧模組化網管型乙太網路交換器



特色與優點

- 模組化設計，擁有 4 埠銅質/光纖組合
- 支援熱插拔媒體模組，允許不斷電下連續運作
- 支援 Turbo Ring 和 Turbo Chain (250 台交換器，復原時間小於 20 毫秒)¹，以及透過 STP/RSTP/MSTP 協議支援網路備援
- 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 工具程式和 ABC-01 輕鬆管理網路
- 支援 MXstudio，輕鬆實現可視化的工業網路管理

認證



EN 50121-4



簡介

小巧的 EDS-616 系列的多功能模組化設計能夠讓使用者合併光纖和銅質模組，以便建立適合任何自動化網路的交換器解決方案。EDS-616 的模組化設計可讓您安裝最多 16 個快速乙太網路連接埠，而進階的 Turbo Ring 和 Turbo Chain (復原時間小於 20 毫秒) 技術、RSTP/STP 以及 MSTP 則可協助增加您的工業乙太網路的可靠性與可用性。

同時也提供寬溫 (-40 至 75°C) 的型號選擇。EDS-616 系列支援數個可靠以及智慧的功能，包括 EtherNet/IP、Modbus TCP、LLDP、DHCP Option 82、SNMP Inform、QoS、IGMP snooping、VLAN、TACACS+、IEEE 802.1X、HTTPS、SSH、SNMPv3 以及更多功能，使得乙太網路交換器適合任何惡劣的工業環境。

附加特色與優點

- 命令列介面 (CLI) 快速設定主要網管功能
- SNMP Inform 可用於確保可靠的事件管理
- LLDP 可用於進行自動拓撲搜索
- 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
- Port mirroring 可用於除錯
- IGMP snooping 和 GMRP，用於過濾 multicast 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) 提高資料傳送穩定性
- Port Trunking 可將頻寬使用率最佳化
- 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
- 頻寬管理可防止無法預測的網路狀態
- 鎖定連接埠功能可根據 MAC 位址封鎖未經授權的存取
- 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

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

1. 如果連接埠連結速度為 1 Gigabit 或更高，復原時間小於 50 毫秒。

Ethernet Interface

Module	4 slots for any combination of 4-port interface modules, 10/100BaseT(X) or 100BaseFX
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 802.3ad for Port Trunk with LACP IEEE 802.3u for 100BaseT(X) and 100BaseFX IEEE 802.3x for flow control

Ethernet Software Features

Filter	GMRP GVRP IGMP v1/v2 Port-based VLAN
Industrial Protocols	EtherNet/IP Modbus TCP
Management	Back Pressure Flow Control BOOTP 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	Link Aggregation MSTP RSTP STP Turbo Chain Turbo Ring v1/v2
Security	Broadcast storm protection HTTPS/SSL Port Lock RADIUS SSH TACACS+
Time Management	NTP Server/Client SNTP

Switch Properties

IGMP Groups	256
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

LED Interface

LED Indicators	PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL
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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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Power Parameters

Connection	1 removable 6-contact terminal block(s)
Input Voltage	12/24/48 VDC Redundant dual inputs
Input Current	2.4 A @ 12 VDC Note: These are the input current ratings for the device with the maximum number of modules installed.
Power Consumption (Max.)	28.8 W @ 12 VDC Note: These are the power consumption ratings for the device with the maximum number of modules installed.
Overload Current Protection	Supported
Reverse Polarity Protection	Supported

Physical Characteristics

IP Rating	IP30
Dimensions	185 x 151 x 157.4 mm (7.28 x 5.95 x 6.20 in)
Weight	2,448 g (5.40 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)

Environmental Limits

Operating Temperature	EDS-616: 0 to 60°C (32 to 140°F) EDS-616-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

Freefall	IEC 60068-2-32
EMC	EN 55032/35 EN 61000-6-2/-6-4
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: 4 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	ATEX Class I Division 2
Maritime	ABS DNV LR NK
Railway	EN 50121-4
Safety	EN 62368-1 UL 508
Shock	IEC 60068-2-27
Traffic Control	NEMA TS2
Vibration	IEC 60068-2-6

MTBF

Time	546,937 hrs
Standards	Telcordia (Bellcore), GB

Warranty

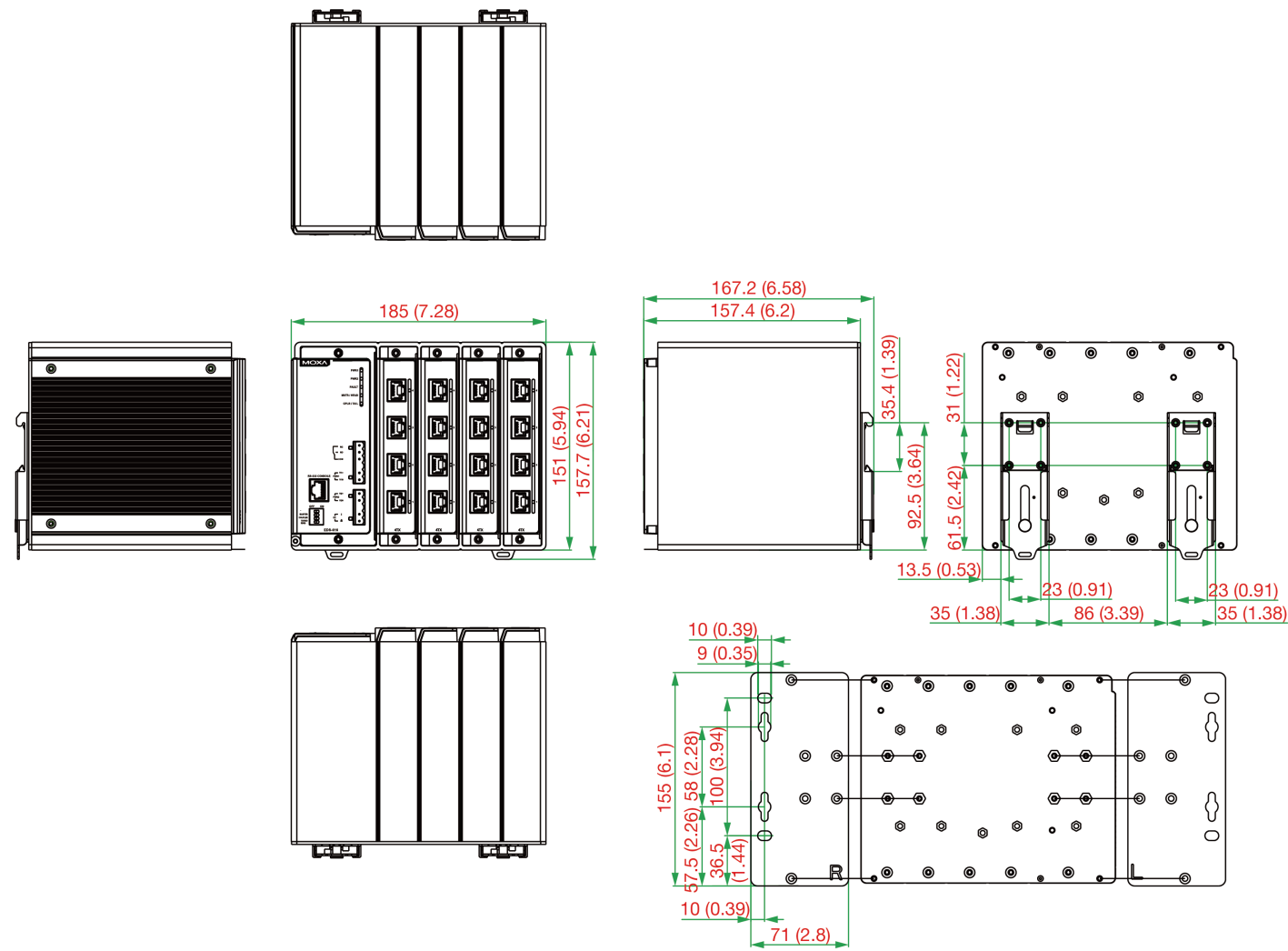
Warranty Period	5 years
Details	See www.moxa.com/warranty

Package Contents

Device	1 x EDS-616 Series switch
Cable	1 x RJ45-to-DB9 console cable
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	Modules from the CM-600 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	Module 10/100BaseT(X) and/or 100BaseFX	Operating Temp.
EDS-616	2	16	4 slots for up to 16 10/ 100BaseT(X) and/or 100- BaseFX ports	0 to 60°C
EDS-616-T	2	16	4 slots for up to 16 10/ 100BaseT(X) and/or 100- BaseFX ports	-40 to 75°C

配件（選購）

CM-600 Module Series

CM-600-4TX	Fast Ethernet interface module with 4 10/100BaseT(X) ports, RJ45 connectors, -40 to 75°C operating temperature
CM-600-4MSC	Fast Ethernet interface module with 4 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature
CM-600-4MST	Fast Ethernet interface module with 4 100BaseFX multi-mode ports, ST connectors, -40 to 75°C operating temperature
CM-600-4SSC	Fast Ethernet interface module with 4 100BaseFX single-mode ports, SC connectors, -40 to 75°C operating temperature

CM-600-3MSC/1TX	Fast Ethernet interface module with 1 10/100BaseT(X) port, RJ45 connector, and 3 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature
CM-600-3SSC/1TX	Fast Ethernet interface module with 1 10/100BaseT(X) port, RJ45 connector, and 3 100BaseFX single-mode ports, SC connectors, -40 to 75°C operating temperature
CM-600-2MSC/2TX	Fast Ethernet interface module with 2 10/100BaseT(X) ports, RJ45 connectors, and 2 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature
CM-600-2SSC/2TX	Fast Ethernet interface module with 2 10/100BaseT(X) ports, RJ45 connectors, and 2 100BaseFX single-mode ports, SC connectors, -40 to 75°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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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-75	Wall-mounting kit, 2 plates, 8 screws, 75 x 90 x 2.5 mm
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