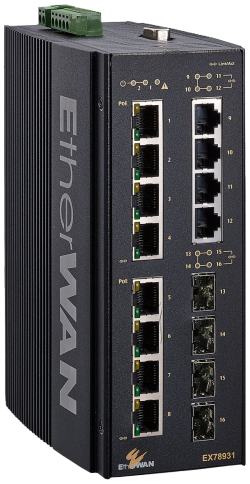
EX78900 系列

Lite L3 強固級網管型 16 埠 (8 x PoE) Gigabit 乙太網路交換器



產品介紹

This product is discontinued as of 30 Dec. 2024.click here for alternative product.

什麼是第三層交換器 (Layer 3 Switch) ?

EX789000系列強固級乙太網路交換器，具備16個Gigabit連接埠，可支援12個全Gigabit 網路埠，包含8埠 PoE及4個SFP插槽，PoE/PSE埠符合IEEE 802.3af/at供電標準，Ultra PoE 網路埠，每埠最高可支援60W，總供電瓦數為240W，可廣泛應用於許多終端受電(PD)設備，例如PTZ 球型攝影機、無線基地台及軌旁通訊設備等。

搭配益網獨家技術Alpha-Ring環狀網路備援機制，可在網路發生斷線時迅速啟動備援機制，在15毫秒內便可快速恢復連線通訊。具備完整管理功能，包含port security, IGMP snooping, port-based VLAN, GARP 協定, link aggregation and ACL；使用者可透過網頁瀏覽, telnet, SSH, SNMP, RMON, TFTP,和RS-232 console 管理介面，使複雜的專案規劃事半功倍。

EX78900系列專為嚴峻戶外環境設計打造，工業等級設計，可承受強力的落摔衝擊、防震動及抗電磁波干擾，在 -40 到 75°C 寬溫環境下穩定運作，於嚴峻的專案規劃佈局中扮演致勝的關鍵角色。

EtherWAN — "When Connectivity is Crucial."

產品亮點

高頻寬彈性配置

8 或 12 個 10/100/1000BASE-T(X) 高速連接埠
多達 4 個 1G SFP+ 光纖上行鏈路連接埠
全雙工運行的全容量交換

PoE 乙太網供電功能

IEEE 802.3bt 支援每埠最高60W, 總輸出功率達 240W
PoE 看門狗監控設備的連接狀態與自訂排程

強固等級適用於不通風的惡劣環境

-40 至 75°C (-40 至 167°F)的寬工作溫度範圍
無風扇設計
高衝擊、耐熱和電氣干擾抵抗力

管理/安全功能

連接埠控制連接埠控制，SFTP 安全檔案傳輸協定
以 802.1x 連接埠基礎之網路登入控制以及透過 RADIUS的遠端身份驗證
使用 eVue ™ 和 eLite ™ 設定和監控

第三層網管功能

靜態路由、RIP v1/v2 , 和 OSFP
VRRP 虛擬路由器備援協定
廣播流量減輕

服務支援

提供技術支援
免費韌體升級和通知
有限終身保固

產品特色

Interface

CLI, Telnet, Web GUI

SNMP v1/v2c/v3

Management

Firmware and configuration upgrade and backup via TFTP

DHCP Server/Client

RMON (Remote Monitoring): group 1, 2, 3, 9

Port Mirroring: TX/RX and both

NTP (Network Time Protocol) synchronization

IEEE 802.1ab LLDP (Link Layer Discovery Protocol)

IPv4/IPv6

Security

MAC Address Filtering

Enable/Disable port

Storm control (Broadcast and multicast types)

IEEE 802.1x LAN Access Control

Remote authentication through RADIUS and TACACS+

SSH for CLI and Telnet security

SSL for web security

System log (Remote/Local)

ACL

Quality of Service (QoS)

Priority Queues: 4 queues per port

Traffic classification based on IEEE 802.1p CoS, DSCP, WRR and strict mode

Rate Limiting (Ingress/Egress)

Layer 2 Features

Auto-negotiation for port speed and duplex mode

Flow Control

IEEE 802.3x Full duplex mode

Back-Pressure half duplex mode

Redundant Protocols

IEEE 802.1D STP

IEEE 802.1w RSTP

IEEE 802.1s MSTP

EtherWAN's Alpha-Ring network fault recovery (<15ms)

VLANs

IEEE 802.1Q Tag VLANs

GVRP

GMRP

Link Aggregation

Static Trunk (4 groups, support MAC base)

IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

Layer 3 Features

IP Packet Routing

Maximum number of routes in hardware: 64 entries

Static Routing

RIP v1/v2

OSPF v2

Routing Redundancy

VRRP

產品規格

Interface

Ethernet

8 or 12 (8 PoE) x 10/100/1000BASE-T(X)

4 x 1000BASE SX/LX/SFP

Console

1 x DB9 RS-232

Alarm Contact

1 x Relay output, current capacity 0.5A/48VDC

LED Indicators

Per Unit: Power 1, Power 2

Per Port: Link/Activity (Green)

Per PoE Port: PoE Status (Orange)

Physical

Casing Material

Aluminum

IP Rating

IP30

Dimensions

72 x 140 x 170mm (W x D x H)

2.8" x 5.5" x 6.7"

Weight

1.5kg (3.3lbs)

Installation Type

DIN-rail mounting

Technology

Standards

IEEE 802.3 10BASE-T

IEEE 802.3u 100BASE-TX/100BASE-FX

IEEE 802.3ab 1000BASE-T

IEEE 802.3z 1000BASE-SX/1000BASE-LX

IEEE 802.3x Full duplex and flow control

IEEE 802.1p QoS

IEEE 802.1Q Tag VLANs

IEEE 802.1w RSTP

IEEE 802.1x PNAC

IEEE 802.3af/at Power over Ethernet

Forward/Filtering Rate

14,880pps for 10Mbps

148,810pps for 100Mbps

1,488,100pps for 1000Mbps

Packet Buffer Memory

12M bits

Processing Type

Store-and-Forward

Auto-negotiation

Half-duplex back-pressure and IEEE 802.3x Full-duplex flow control

Auto MDI/MDIX

Jumbo Frame

9216 bytes

Address Table Size

16K MAC Addresses

Environmental

Operating Temp.

-40 to 75°C (-40 to 167°F)

Tested @ -40 to 85°C (-40 to 185°F)

Storage Temp.

-45 to 85°C (-49 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

Regulatory

ISO

Manufactured in ISO-9001 facility

EMI

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4

EN 61000-3-2

EN 61000-3-3

EMS

EN 61000-6-2

EN 61000-4-2 (ESD)

EN 61000-4-3 (Radiated RFI)

EN 61000-4-4 (Burst)

EN 61000-4-5 (Surge)

EN 61000-4-6 (Induced RFI)

EN 61000-4-8 (Magnetic Field)

Vibration

IEC 60068-2-6 Fc

Shock

IEC 60068-2-27 Ea

Free Fall

FED STD 101C Method 5007.1

Power

Input

52-57VDC Redundant (Terminal block)

Power Consumption

20W Max (without PoE)

PoE Technology

Alternative A & B

Pins 1/2(+), 3/6(-), Pins 7/8(-), 4/5(+)

PoE Power Output

PoE can be configured as:
1. 6-port 15.4W PoE and 2-port 60W PoE
2. 8-port 30W PoE
3. 4-port 10/100/1000-TX and 4-port 60W PoE
4. Other PoE power level configuration can be done through firmware

Power Budget: 240W

Protection

Reverse Polarity Protection

Warranty

Length

Limited Lifetime

Details

www.etherwan.com/support/warranty-policy

What's Included

Device

Ethernet Switch

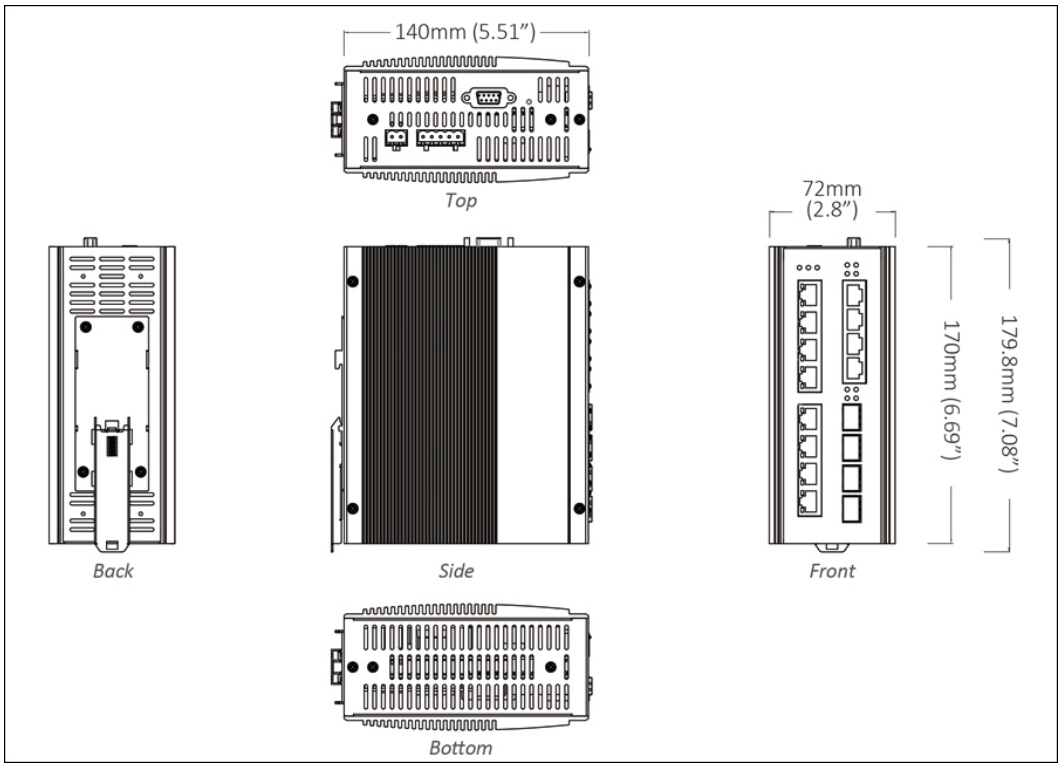
Cables

1 Console Cable

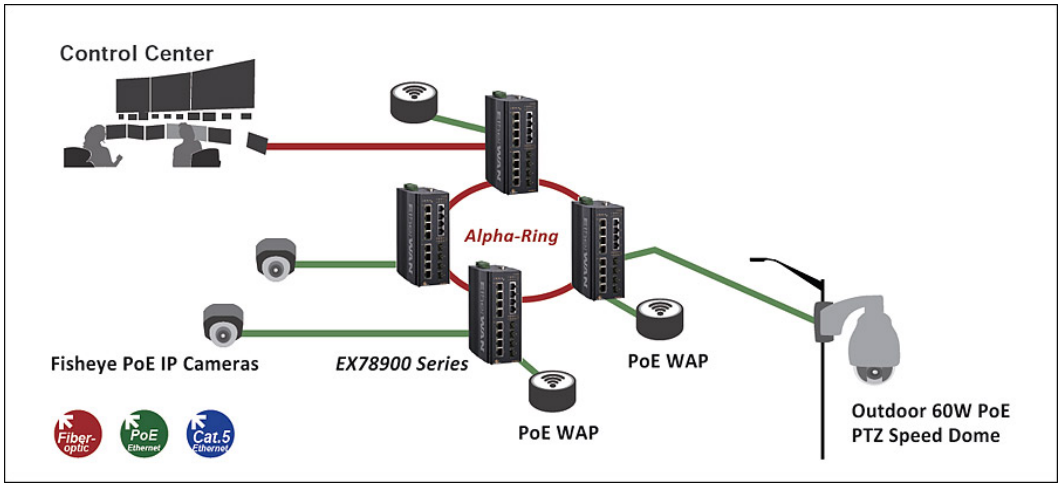
Documentation

Quick Install Guide

產品尺寸圖

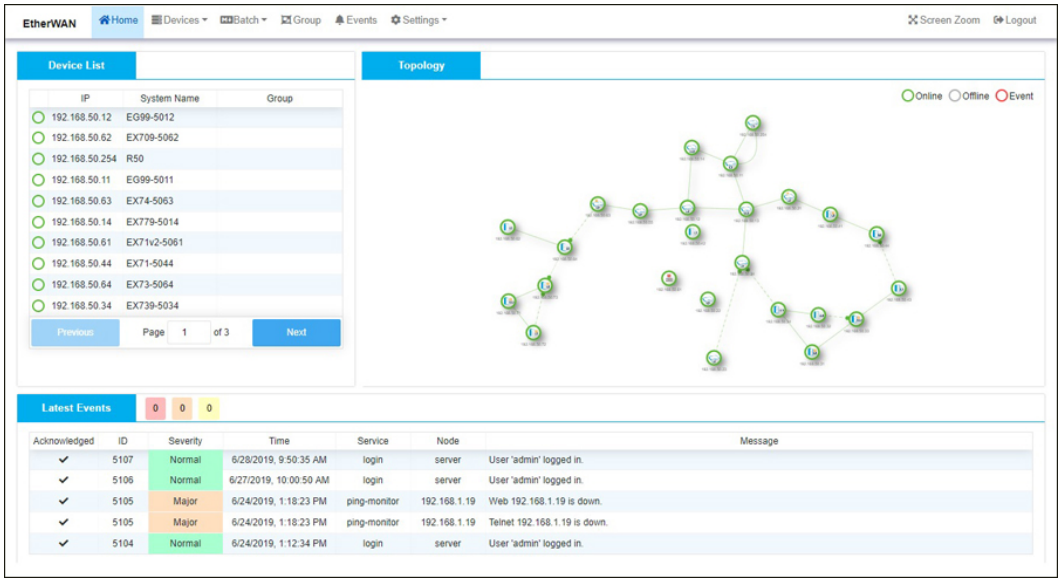

140mm (5.51")
Top
72mm
(2.8")
Back
Side
Front
170mm (6.69")
179.8mm (7.08")
Bottom

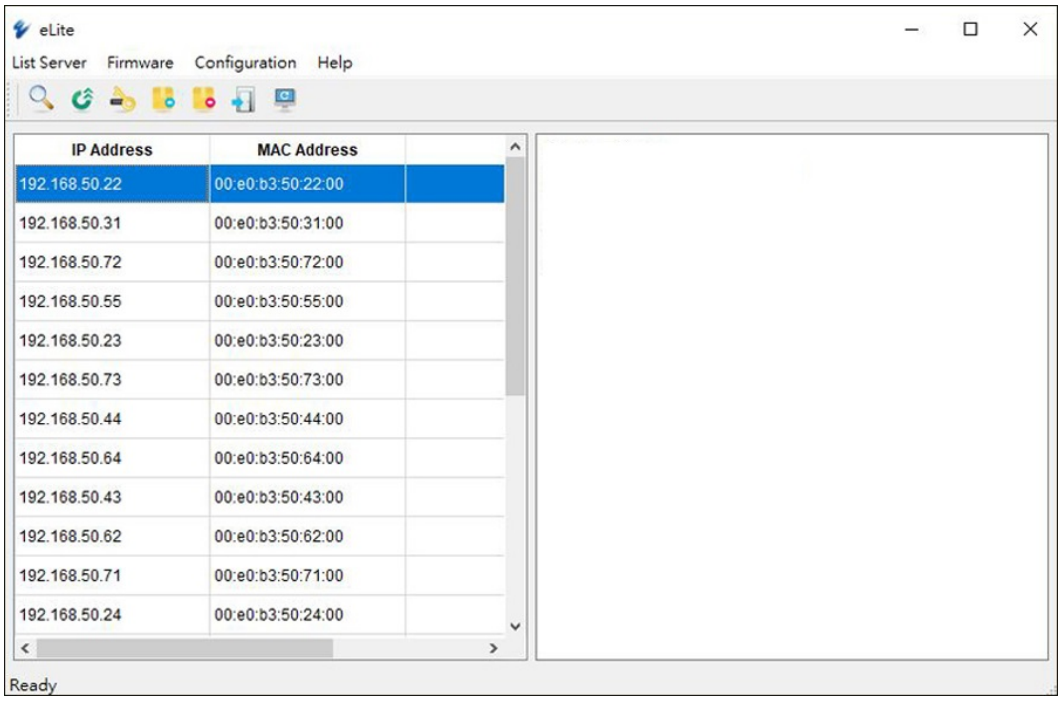
產品應用圖


Control Center
Alpha-Ring
Fisheye PoE IP Cameras
EX78900 Series
PoE WAP
PoE WAP
Outdoor 60W PoE
PTZ Speed Dome
Fiber-optic
PoE Ethernet
Cat.5 Ethernet

管理軟體

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





訂購型號

Model

EX78931-0VB	12-Port 10/100/1000BASE-TX with 8-port PoE + 4-port Gigabit SFP
EX78921-0VB	8-Port 10/100/1000BASE-TX PoE + 4-Port Gigabit SFP
EX78921-0XB	8-Port 10/100/1000BASE-TX PoE + 4-Port Gigabit Fiber

* DIN-Rail mounting kit included.

Gigabit Port Options (X)

3	1000BASE-SX (SC) - 550m
4	1000BASE-SX (SC) - 2Km
5	1000BASE-SX (ST) - 550m
A	1000BASE-LX (SC) - 10Km
B	1000BASE-LX (SC) - 20Km
R	1000BASE-BX (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
S	1000BASE-BX (SC) WDM-TX: 1550nm/RX: 1310nm-20Km

* More Gigabit options also available upon request.

Accessories

Hardened Gigabit SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
DIN-Rail Power Supplies	www.etherwan.com/products/din-rail-power-supply (*)
***Recommended Power Supply**	HDR-30-24 30W 24VDC DIN-Rail Power Supply
EB-232	Configuration Backup and Restoration Tool

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