

EX73900X 系列

強固級網管型 12 埠 Gigabit + 4 埠 10G SFP+ 乙太網路交換器



產品介紹

什麼是第三層交換器 (Layer 3 Switch) ?

益網科技 EX73900X 系列是強固級網管型導軌式乙太網交換機平台。配備多達 12 個 Gigabit 連接埠，以及 4 個 10-Gigabit SFP+ 連接埠，同時支援 IEEE 1588v2 標準的精確時間通訊協定，利用網路封包及時間戳記進行網路時間同步。為城市基礎設施、交通、安全和其他領域的重要網路連結、提供靈活、高速和可靠的 通訊表現。

IEC 62443-4-2 認證 — 為關鍵工業與基礎設施應用打造更強大的資安韌性與營運可靠性。

益網科技 - “ 連結，制勝的關鍵 ”

產品亮點

+ 高頻寬彈性配置

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

+ 認證規範

IEC 61850-3/IEEE 1613 變電站認證
NEMA TS2 規範
UL 安全認證

+ 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，SFTP 安全檔案傳輸協定
Dying gasp 功能在斷電時提供 SNMP 告警
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 OSPF
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

軟體功能

+ Interface

CLI, Telnet, Web GUI, SSH

+ Management

Firmware upgrade
SFTP (Secured FTP) support
Configuration backup
DHCP Server/Client
RMON (Remote Monitoring)
Port Mirroring
NTP (Network Time Protocol) synchronization
LLDP (Link Layer Discovery Protocol)
IPv4/IPv6
SNMP v1/v2c/v3
Modbus TCP

+ Security

MAC Address filtering
Enable/Disable port
Storm Control
System Logging
IEEE 802.1x LAN Access Control
Remote authentication through RADIUS and TACACS+
Complex password support
Multi-user login and privileged access management
SSH for CLI and Telnet security
TLS and HTTPS for Web security
ACL (Access Control List, up to 4096 entries)
Storm Detection Support
IPSG (IP Source guard)
DAI (Dynamic ARP Inspection)
DHCP Snooping

+ Layer 2 Features

Auto-negotiation for port speed and duplex
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

VLANs

IEEE 802.1Q Tag VLANs
GVRP
GMRP

Link Aggregation

Static Trunk (4 groups)
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

+ Quality of Service (QoS)

Priority Queues: 8 queues per port

Traffic classification based on IEEE 802.1p CoS (Cost of Service), DSCP (Differentiated Services Code Point), WRR (Weighted Round Robin), and strict mode

Rate Limiting (Ingress/Egress)

+ Software Properties and Performance

Switching Fabric

104Gbps

Forwarding Rate

75.29Mpps

Max VLANs

256 (4096 VID)

Jumbo Frame Size

9KB

MAC Table Size

16K

Packet Buffer Memory

12M bits

硬體規格

+ Interface

Ethernet

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

2 or 4 x 1/10G SFP+

Console

1 x RJ45

Config Backup

1 x USB (Type A Connector)

Digital Input

2 x Digital Input

Wet Contact: 0-3V for State 0; 13-30V for State 1;
max input current: 8mA

Dry Contact: Logic Level 1-Close to GND; Logic
Level 0-Open

Alarm Contact

2 x Relay output, current capacity; 0.6A/30VDC

LED Indicators

Per Unit: Power 1, Power 2, Alarm

Per Port: Link/Activity

+ 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

1.4kg (3.08lbs)

Installation Type

DIN-rail mounting

+ Environmental

Operating Temp.

-40 to 75°C (-40 to 167°F)

(-40°C to 85°C for IEC 60068-2-2 Environmental 16
hours)

Storage Temp.

-45 to 85°C (-49 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

MTBF

2,027,629 hours

+ Technology

Standards

IEEE 802.3 10BASE-T
IEEE 802.3u 100BASE-TX/100BASE-FX
IEEE 802.3ab 1000BASE-T
IEEE 802.3ad link aggregation control
IEEE 802.3z 1000BASE-SX/1000BASE-LX
IEEE 802.3x full duplex and flow control
IEEE 802.1D STP
IEEE 802.1p QoS
IEEE 802.1Q Tag VLANs
IEEE 802.1s MSTP
IEEE 802.1w RSTP
IEEE 802.1x PNAC
IEEE 802.1ab LLDP
IEEE 802.3az EEE
IEEE 1588v2 PTP

Forward/Filtering Rate

14,880pps for 10Mbps
148,810pps for 100Mbps
1,488,100pps for 1000Mbps
14,881,000pps for 10Gbps

Processing Type

Store-and-forward
Auto-negotiation
Half-duplex back-pressure and fullduplex flow control
Auto MDI/MDIX

System Memory

2Gb DDR3 SDRAM

Flash Storage

1Gb

+ 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
BSMI

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)

Safety

UL 61010

Cybersecurity

IEC 62443-4-1
IEC 62443-4-2

Traffic

NEMA TS2

Railway

EN 50121-4

Power Substation

IEC 61850-3/IEEE 1613/IEC 60255-27

Vibration

IEC 60068-2-6

Shock

IEC 60068-2-27

Free Fall

FED STD 101C Method 5007.1

+ Power

Input

12-48VDC Redundant (Terminal block)

Power Consumption

20W Max

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

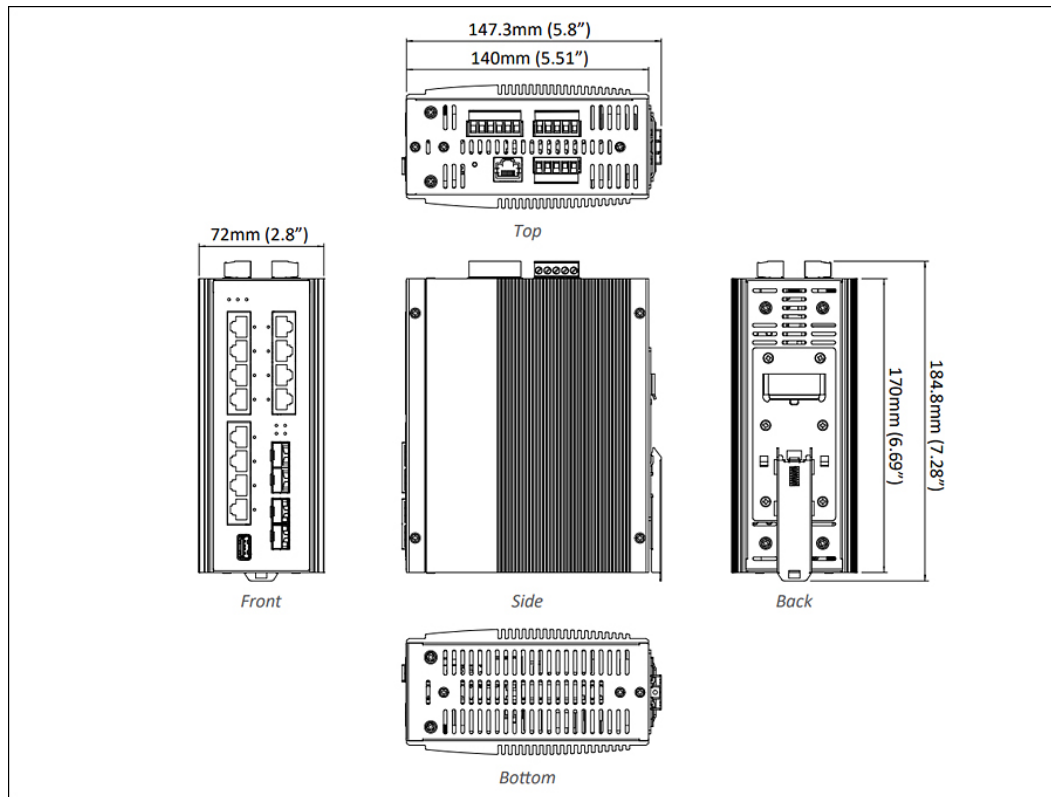
Installation

Mounting brackets, screws

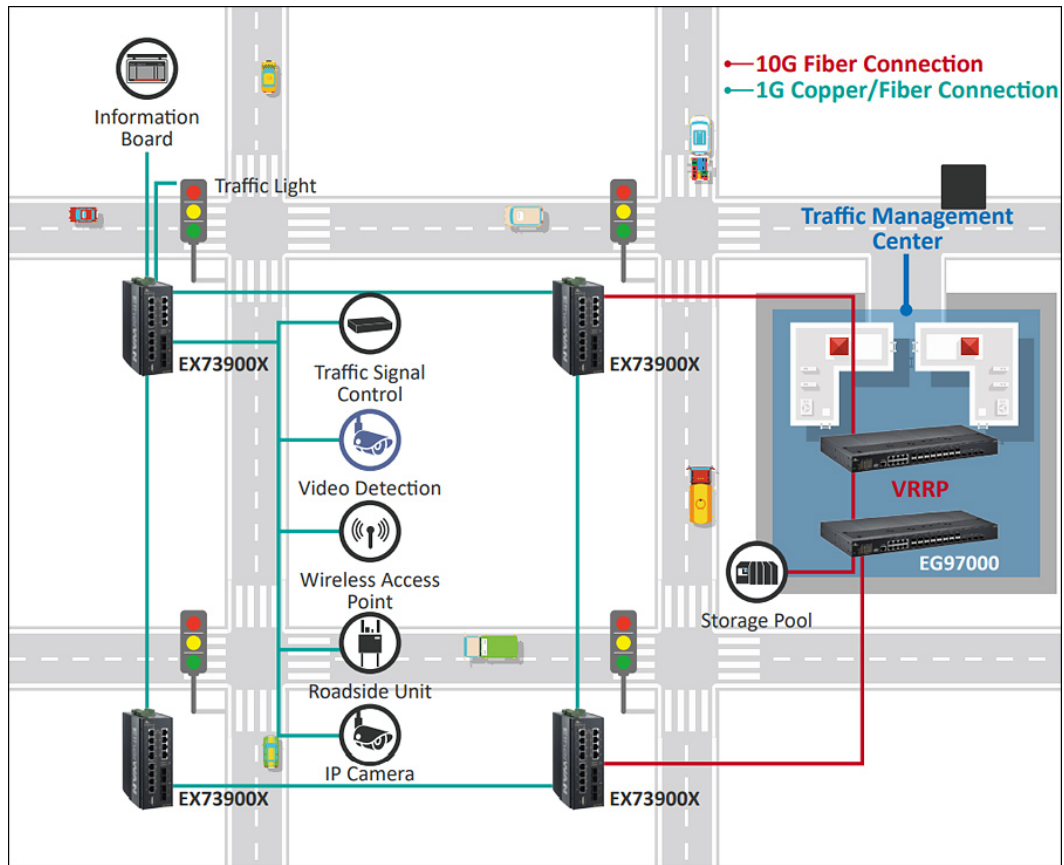
Documentation

Quick install guide

產品尺寸圖



應用圖



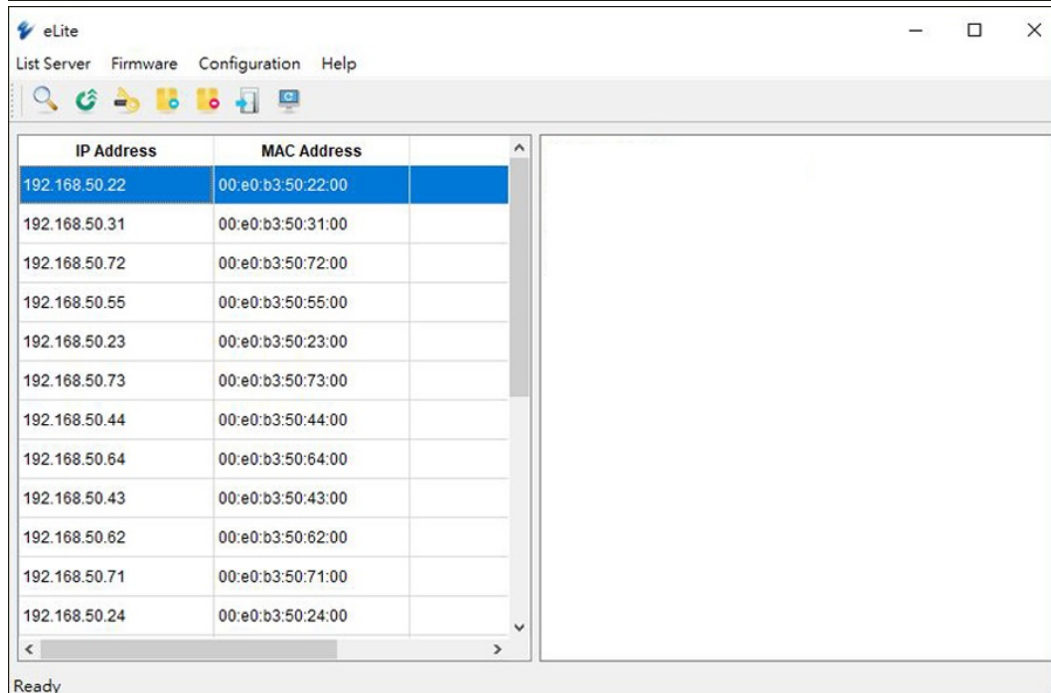
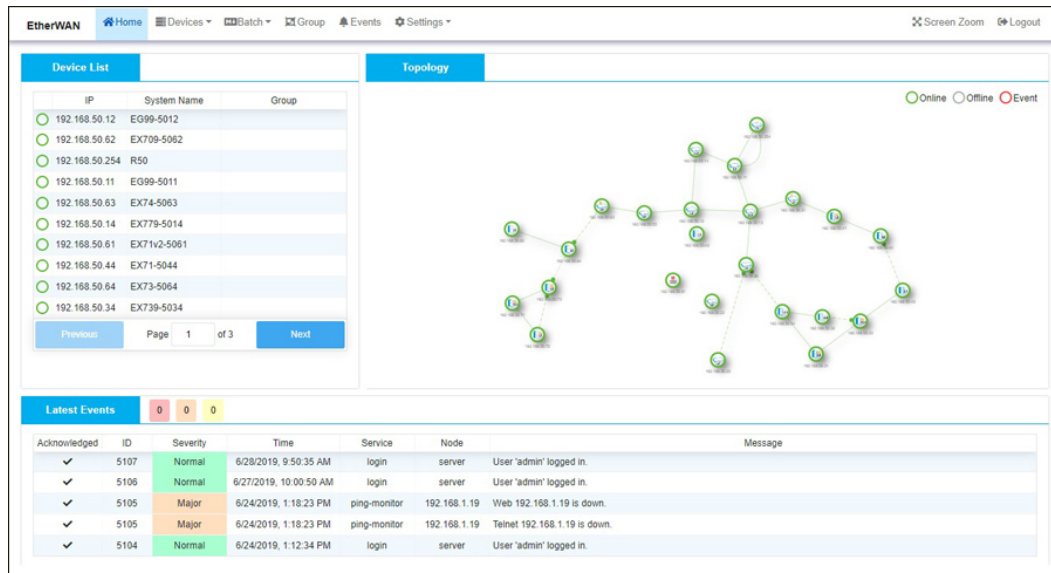
軟體工具

網路管理

[eVue™ 網絡配置和監控工具](#)

網路探索

[eLite™ 網絡偵測和 IP 配置工具](#)



訂購型號

+ Model

			
	EX73934X-0VB	EX73924X-0VBB	EX73922X-0VB
10/100/1000BASE TX	12	8	8
1G/10G SFP+	4	4	2
	訂購諮詢	訂購諮詢	訂購諮詢

+ 配件選購

Hardened Gigabit & 10 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-30-12 24W/ 2A DIN Rail 12VDC Industrial Power Supply

