

## EX75900 系列

強固級網管型 28 埠 Gigabit PoE 乙太網路交換器



## 產品介紹

EtherWAN EX75900 系列是一款強固型機架式網管型 PoE 工業乙太網路交換器，專為任務關鍵型工業網路與基礎設施應用所設計。全系列配備 24 埠 10/100/1000BASE-T(X) PoE 連接埠，**依不同機型提供單埠最高 60W 或 90W PoE 輸出選擇**，讓使用者可依受電設備的功率需求，選擇合適的 PoE 供電規格。

針對高功率 PoE 應用，**EX75964-0VTH 支援 IEEE 802.3bt Type 4**，單埠最高可提供 **90W PoE 輸出**，適合為高功率 PTZ 攝影機、高效能無線基地台、數位看板，以及其他高耗電邊緣設備供電。EX75900 系列的 PoE 總功率最高可達 720W，並依所選機型提供 4 埠 10G SFP+ 或 4 埠 Gigabit SFP 上行連接埠。

EX75900 系列專為嚴苛環境與全天候持續運作而設計，適用於城市基礎設施、智慧交通系統、公共安全、影像監控，以及其他需要穩定且高功率 PoE 網路連線的工業應用。

**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。**

## 產品亮點

### + 高頻寬傳輸與彈性上行連接

24 埠 10/100/1000BASE-T(X) Gigabit 乙太網路連接埠  
4 埠 1G SFP 或三速率 1G/2.5G/10G SFP+ 上行連接埠  
支援全線速交換與全雙工傳輸

### + 高功率 PoE 供電

支援 IEEE 802.3af/at/bt PoE 標準  
單埠最高 90W PoE 輸出，PoE 總功率最高 720W  
支援 PoE Watchdog 自動監測與排程管理

### + 強固設計，適用於嚴苛工業環境

支援 -40°C 至 75°C (-40°F 至 167°F) 寬溫運作  
無風扇設計，提升長時間運作的穩定性與可靠性  
具備優異的耐衝擊、耐熱衝擊與抗電氣雜訊能力

### + 網路管理與資安防護

支援多使用者權限分級管理，強化管理安全性  
支援 IEEE 802.1X、RADIUS 與 TACACS+ 身分驗證  
搭配 eVue™ 與 eLite™，實現集中式網路監控與管理

### + 精簡型 Layer 3 網路功能

支援靜態路由、RIP v1/v2 與 OSPF 動態路由協定  
支援 VRRP 閘道備援，提升網路可用性  
有效降低廣播流量，提升工業網路傳輸效率

### + 技術支援與產品保固

提供免費專業技術支援  
提供免費韌體升級與版本更新通知  
提供有限終身保固

## 軟體特色

### + Interface

CLI, Telnet, Web GUI

### + Management

Firmware upgrade  
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  
SFlow

### + 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  
SSL and HTTPS for web security  
ACL (Access Control List, up to 4096 entries)  
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

EX75960: 56Gbps

EX75964: 128Gbps

### Forwarding Rate

95.23Mpps

### Max VLANs

256 (4096 VID)

### Jumbo Frame Size

9KB

### MAC Table Size

16K

### Packet Buffer Memory

12M bits

## 硬體規格

### + Interface

**Ethernet**

24 x 10/100/1000BASE-T(X)

4 x 1G/2.5G/10G SFP+ or 4 x 1G 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**

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

**LED Indicators**

Per Unit: Power 1, Power 2, Alarm

Per Port: Link/Activity (Green)

Per PoE Port: PoE Status (Orange)

### + Physical

**Casing Material**

Metal

**IP Rating**

IP30

**Dimensions**

442 x 270 x 44.2mm (W x D x H)

17.4" x 10.6" x 1.74"

**Weight**

5.1Kg (11.2lbs)

**Installation Type**

Rack mounting

### + Environmental

**Operating Temp.**

-40 to 75°C (-40 to 167°F)

**Storage Temp.**

-45 to 85°C (-49 to 185°F)

**Relative Humidity**

5% to 95% (non-condensing)

**MTBF**

1,444,959 hours

## + Technology

### Standards

IEEE 802.3 10BASE-T  
IEEE 802.3u 100BASE-TX/100BASE-FX  
IEEE 802.3ab 1000BASE-T  
IEEE 802.3ae 10Gigabit Ethernet  
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 802.3af/at/bt Power over Ethernet  
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 full-duplex 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  
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)  
PoE Ports: line to earth 6kV Surge  
EN 61000-4-6 (Induced RFI)  
EN 61000-4-8 (Magnetic field)

### Safety

UL 62368

### Cybersecurity

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

### Vibration

IEC 60068-2-6

### Shock

IEC 60068-2-27

### Free Fall

FED STD 101C Method 5007.1

### Traffic

NEMA TS2

### Railway

EN 50121-4

## + Power

### Input

46-57VDC Redundant (Terminal block)\*\*

\*\* 46-57VDC for IEEE 802.3af type 1, ≤15.4W PD devices.

52-57VDC for IEEE 802.3at/bt type 2/3/4, 30W, 60W, 90W (54-57VDC) PD devices.

### Power Consumption

26W Max (without PoE)

### PoE Modes

802.3af/at Mode A: Pins 1/2(-), 3/6(+)

802.3bt (60W/90W): Mode A & B, Pins 1/2(-), 3/6(+), 4/5(+), 7/8(-)

### PoE Power Output

Port: Up to 60W/port

Up to 90W/port (EX75964-0VTH)

Power Budget: 720W

### Protection

Reverse Polarity Protection

## + Warranty

### Length

Limited Lifetime

### Details

[www.etherwan.com/support/warranty-policy](http://www.etherwan.com/support/warranty-policy)

## + What's Included

### Device

Ethernet Switch

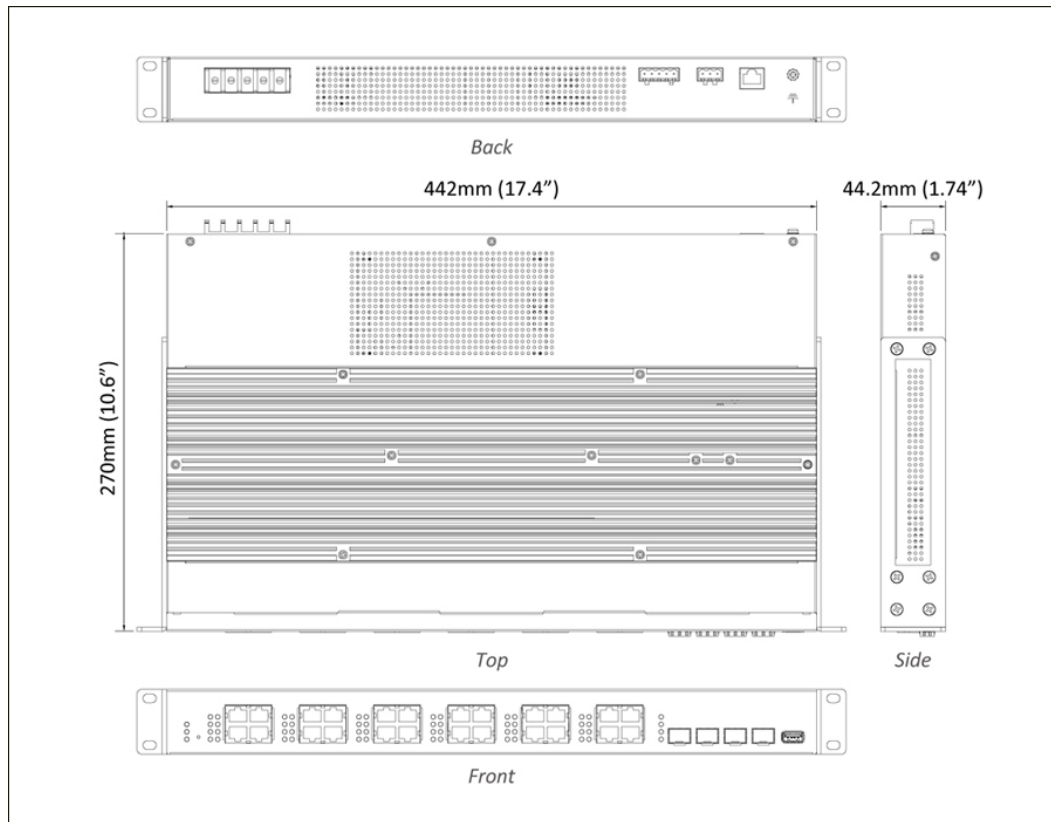
### Cables

1 Console Cable

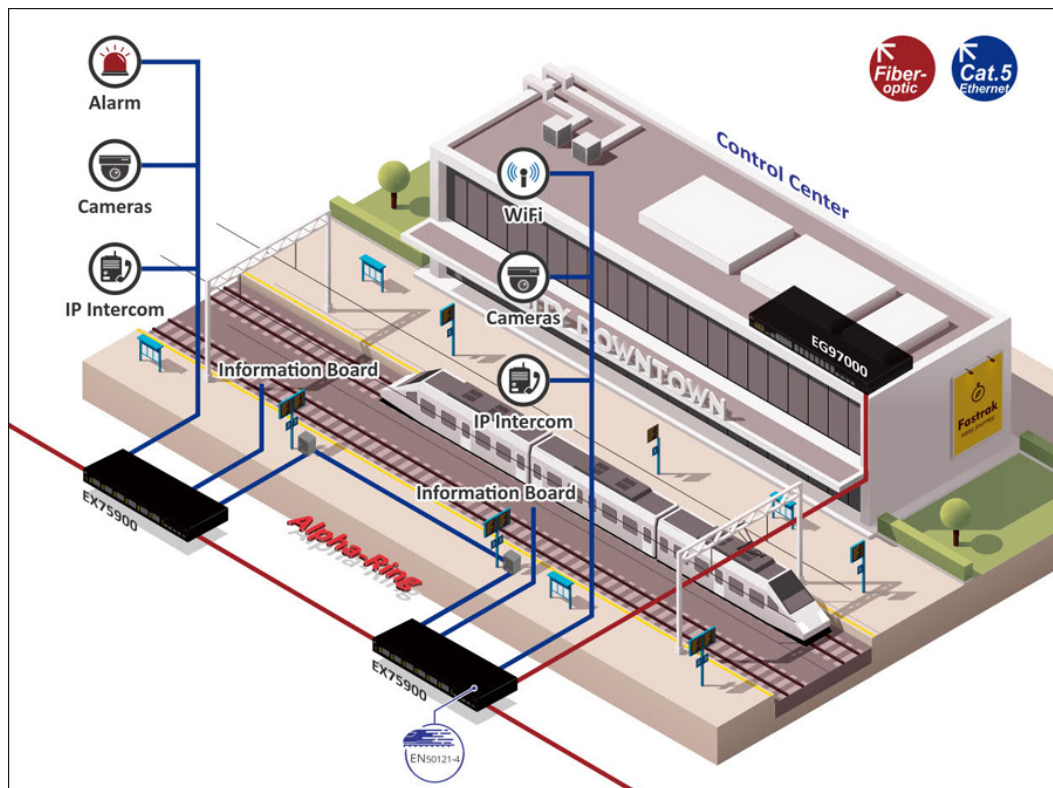
### Installation

Mounting brackets, screws

## 產品尺寸圖



## 產品應用圖



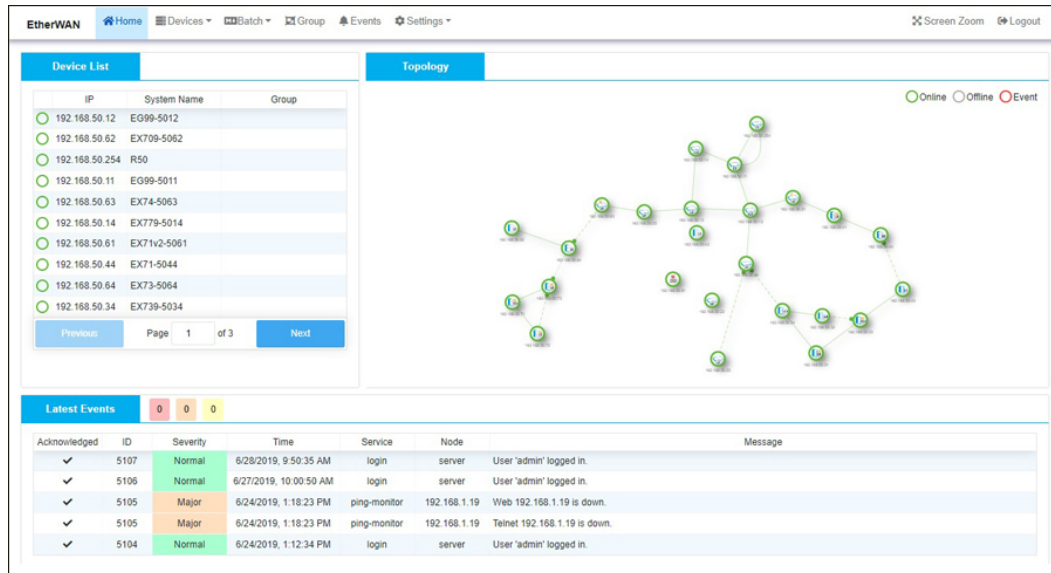
## 軟體

Network Management

[eVue™ Network Configuration and Monitoring Tool](#)

Network Discovery

[eLite™ Network Discovery and IP Configuration Tool](#)



**Device List**

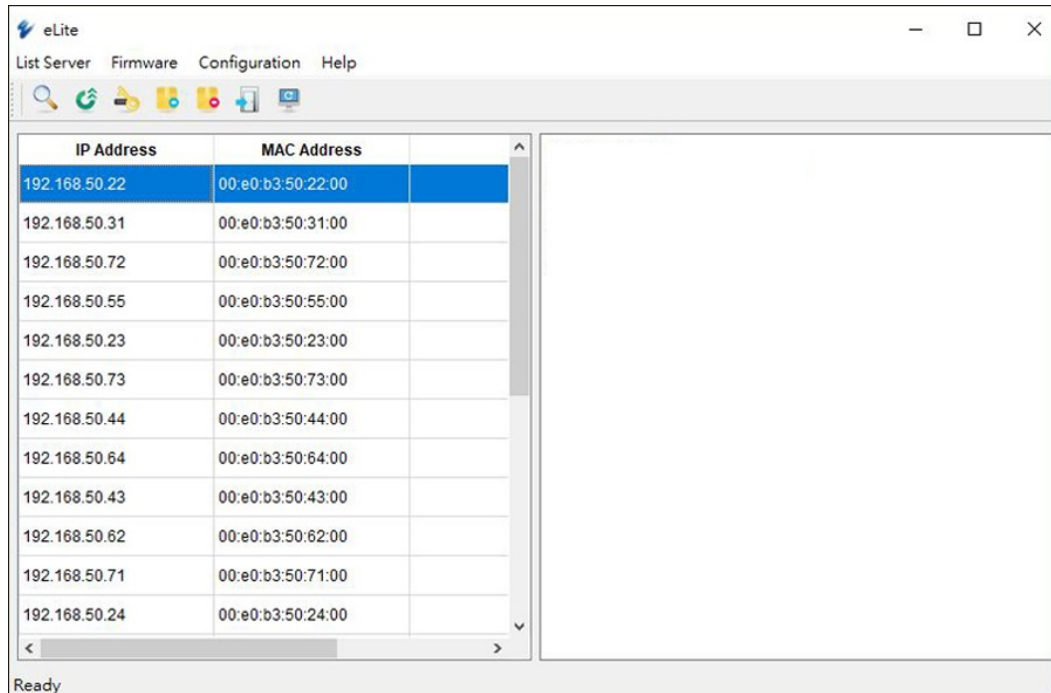
| IP             | System Name | Group |
|----------------|-------------|-------|
| 192.168.50.12  | EG99-5012   |       |
| 192.168.50.62  | EX709-5062  |       |
| 192.168.50.254 | R50         |       |
| 192.168.50.11  | EG99-5011   |       |
| 192.168.50.63  | EX74-5063   |       |
| 192.168.50.14  | EX779-5014  |       |
| 192.168.50.61  | EX71v2-5061 |       |
| 192.168.50.44  | EX71-5044   |       |
| 192.168.50.64  | EX73-5064   |       |
| 192.168.50.34  | EX739-5034  |       |

**Topology**

Online Offline Event

**Latest Events**

| Acknowledged | ID   | Severity | Time                   | Service      | Node         | Message                      |
|--------------|------|----------|------------------------|--------------|--------------|------------------------------|
| ✓            | 5107 | Normal   | 6/29/2019, 9:50:35 AM  | login        | server       | User 'admin' logged in.      |
| ✓            | 5106 | Normal   | 6/27/2019, 10:00:50 AM | login        | server       | User 'admin' logged in.      |
| ✓            | 5105 | Major    | 6/24/2019, 1:18:23 PM  | ping-monitor | 192.168.1.19 | Web 192.168.1.19 is down.    |
| ✓            | 5105 | Major    | 6/24/2019, 1:18:23 PM  | ping-monitor | 192.168.1.19 | Telnet 192.168.1.19 is down. |
| ✓            | 5104 | Normal   | 6/24/2019, 1:12:34 PM  | login        | server       | User 'admin' logged in.      |



**eLite**

List Server Firmware Configuration Help

| IP Address    | MAC Address       |
|---------------|-------------------|
| 192.168.50.22 | 00:e0:b3:50:22:00 |
| 192.168.50.31 | 00:e0:b3:50:31:00 |
| 192.168.50.72 | 00:e0:b3:50:72:00 |
| 192.168.50.55 | 00:e0:b3:50:55:00 |
| 192.168.50.23 | 00:e0:b3:50:23:00 |
| 192.168.50.73 | 00:e0:b3:50:73:00 |
| 192.168.50.44 | 00:e0:b3:50:44:00 |
| 192.168.50.64 | 00:e0:b3:50:64:00 |
| 192.168.50.43 | 00:e0:b3:50:43:00 |
| 192.168.50.62 | 00:e0:b3:50:62:00 |
| 192.168.50.71 | 00:e0:b3:50:71:00 |
| 192.168.50.24 | 00:e0:b3:50:24:00 |

Ready

## 訂購資訊

### + Model



|                      | <b>EX75964-0VTH New!</b> | <b>EX75964-0VTU</b>  | <b>EX75960-0VTU</b>  |
|----------------------|--------------------------|----------------------|----------------------|
| 10/100/1000BASE-T(X) | 24                       | 24                   | 24                   |
| 1G/2.5G/10G SFP+     | 4                        | 4                    | -                    |
| 1000BASE SFP         | -                        | -                    | 4                    |
| PoE per port         | <b>最高支援 90W</b>          | 最高支援 60W             | 最高支援 60W             |
|                      | <a href="#">訂購諮詢</a>     | <a href="#">訂購諮詢</a> | <a href="#">訂購諮詢</a> |

### + Accessories

|                              |                                                                                                                            |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Hardened 100BASE SFP Modules | <a href="http://www.etherwan.com/tw/products/sfp-fiber-transceiver">www.etherwan.com/tw/products/sfp-fiber-transceiver</a> |
| Hardened Gigabit SFP Modules | <a href="http://www.etherwan.com/tw/products/sfp-fiber-transceiver">www.etherwan.com/tw/products/sfp-fiber-transceiver</a> |
| DIN-Rail Power Supplies      | <a href="http://www.etherwan.com/tw/products/din-rail-power-supply">www.etherwan.com/tw/products/din-rail-power-supply</a> |

