

## EG97244 系列

強固級網管型 8 埠 10/100/1000BASE-T + 16 埠 100/1000BASE SFP+ 4 埠 1G/10G SFP + 第 3 層乙太網路交換器



## 產品介紹

### [什麼是第三層交換器 \(Layer 3 Switch\) ?](#)

EtherWAN 的 EG97244 產品為高效能超高速第 3 層乙太網路交換器。EG97244 具有用於光纖的多個千兆位 (1G SFP) 連接埠以及 4 個 10 千兆 (10G SFP+) 的連接埠，主要定位是應用於骨幹型網路上。產品本身具有高度彈性、快速和穩定可靠的優勢，可廣泛應用於城市基礎設施、交通、安全和以及其它與網路串聯相關的網路管理工程領域中。

EtherWAN — "When Connectivity is Crucial."

## 產品亮點

### + 具高頻寬且多點網路連結的靈活性與傳輸能力 + 專案合規等級的網路產品

16 個 100/1000M 雙速率 SFP 連接埠，用於多組光纖連接

4 個 1/10G 雙速率 SFP+ 連接埠，用於連接到核心與集線核心層

8 個 10/100/1000BASE-T RJ45 連接埠，用於乙太網路的銅線連接

符合美國政府 TAA 專案標準

符合 NEMA TS2 等級

符合 UL 安全認證

### + 穩定且安全的網路管理機制

連接埠端口控管 (Port control)

透過風暴 (Storm detection and control) 偵測和控管

可搭配 eVue™ 和 eLite 軟體來做網路監管

### + 適用於不通風和惡劣環境的強固設計

-40 至 75°C (-40 至 167°F) 寬工作溫度範圍

無風扇設計

高耐溫衝擊和高雜訊抗噪

### + 終身保固服務

提供免費技術支援

提供免費韌體升級服務

包含 ECN 和 EOL 通知

### + 完備的第 3 層網路功能等級

硬件等級的路由優化

故障隔離的再加強

運用第 3 層網路功能將整個網路連接在一起

## 產品特色

### + 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

### + Security

MAC Address filtering  
Enable/Disable port  
Storm control  
System logging  
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)

### + Layer 3 Features IPv4

#### Unicast Routing

Static Routing (1K)  
RIP v1/v2  
OSPF v2

#### Multicast Routing

PIM-DM  
PIM-SM  
PIM-SSM

#### Routing Redundancy

VRRP

### + Layer 3 Features IPv6

#### IPv6 Unicast Routing

RIPng  
OSPF v3

#### IPv6 Multicast Routing

PIM6-DM  
PIM6-SM

#### IPv6 Routing Redundancy

VRRP v3

## + 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)

## + 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  
ITU-T G.8032 Ethernet Ring Protection Switch (ERPS)

### VLANs

IEEE 802.1Q Tag VLANs  
GVRP  
GMRP

### Link Aggregation

Static Trunk  
IEEE 802.3ad LACP

### IGMP Snooping v1/v2/v3

## + Software Properties and Performance

### Switch IC Capability

320Gbps

### Forwarding Rate

238.08Mpps

### Total VLAN Entries

256 (4096 VID)

### Jumbo Frame Size

12KB

### MAC Table Size

24K

### Packet Buffer Memory

32M bits

### L2 Routes

Up to 24,000 unicast and 1,000 multicast routes

### L3 IPv4 Routes

Up to 8,000 unicast and 8,000 multicast routes

### L3 IPv6 routes

Up to 2,000 unicast routes

## 產品規格

### + Interface

**Ethernet**

8 x 10/100/1000BASE-T  
16 x 100/1000BASE SFP  
4 x 1G/10G SFP+

**Console**

1 x RJ45

**Config Backup**

1 x USB (Type A Connector)

**Alarm Contact**

Relay output, current capacity 0.6A/30VDC

**LED Indicators**

Per Unit: Power 1, Power 2, Alarm  
Per Port: Link/Activity

### + Power

**Input**

VTR: ±48VDC Redundant (Terminal block)  
VWR: 100-240VAC Redundant (Terminal block)  
VCR: 100-240VAC Redundant (AC Inlet)

**Power Consumption**

75W Max

### + Physical

**Casing Material**

Aluminum

**Dimensions**

442 x 325 x 44mm (W x D x H)  
17.4" x 12.8" x 1.73"

**Weight**

5.6kg (12.3lbs)

**Installation Type**

Rack mounting

**IP Rating**

IP30

### + 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**

1,143,890 hours

### + 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

**Power**

1 AC Power Cord

**Installation**

Mounting brackets, screws

**Documentation**

Quick install guide

## + 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

### 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

4Gb DDR3 SDRAM

### Flash Storage

2GB

## + Regulatory

### ISO

Manufactured in ISO-9001 facility

### EMC

EN 55032

### EMI

FCC Part 15B Class A  
VCCI Class A  
EN 61000-6-4

### EMS

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 62368

### Traffic

NEMA TS2

### Rail

EN 50121-4

### Vibration

IEC 60068-2-6

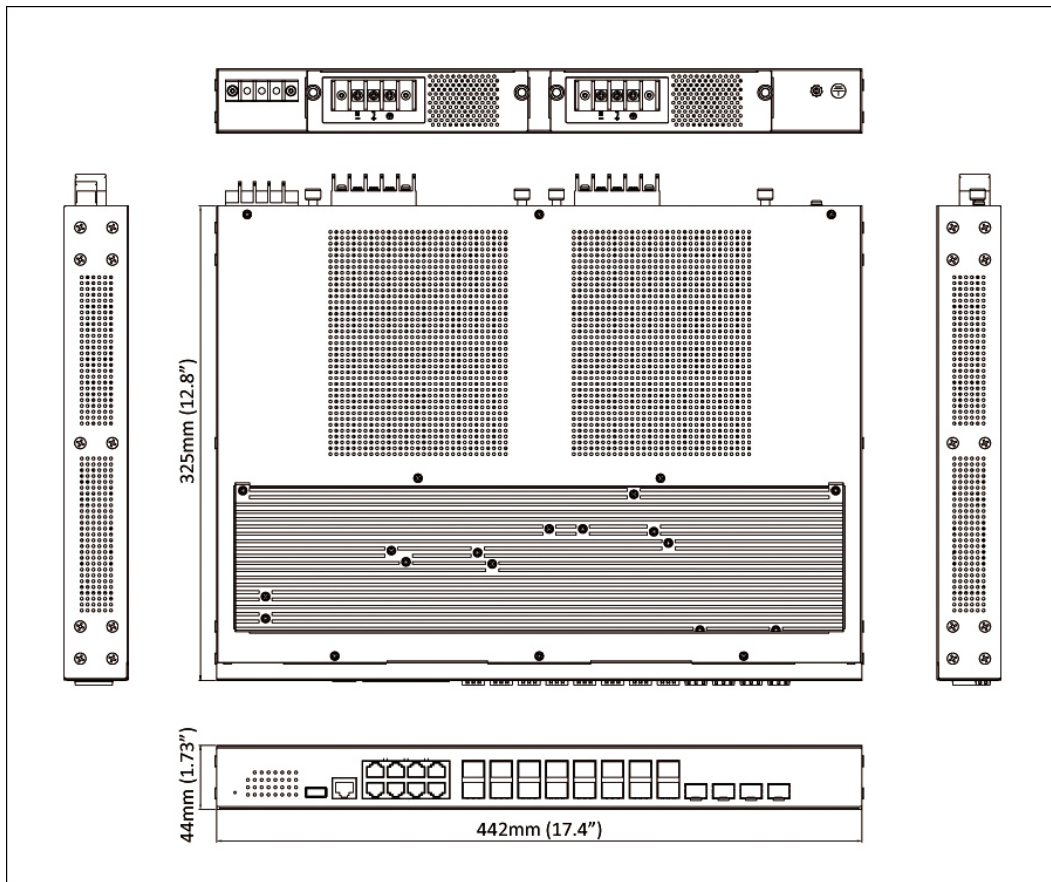
### Shock

IEC 60068-2-27

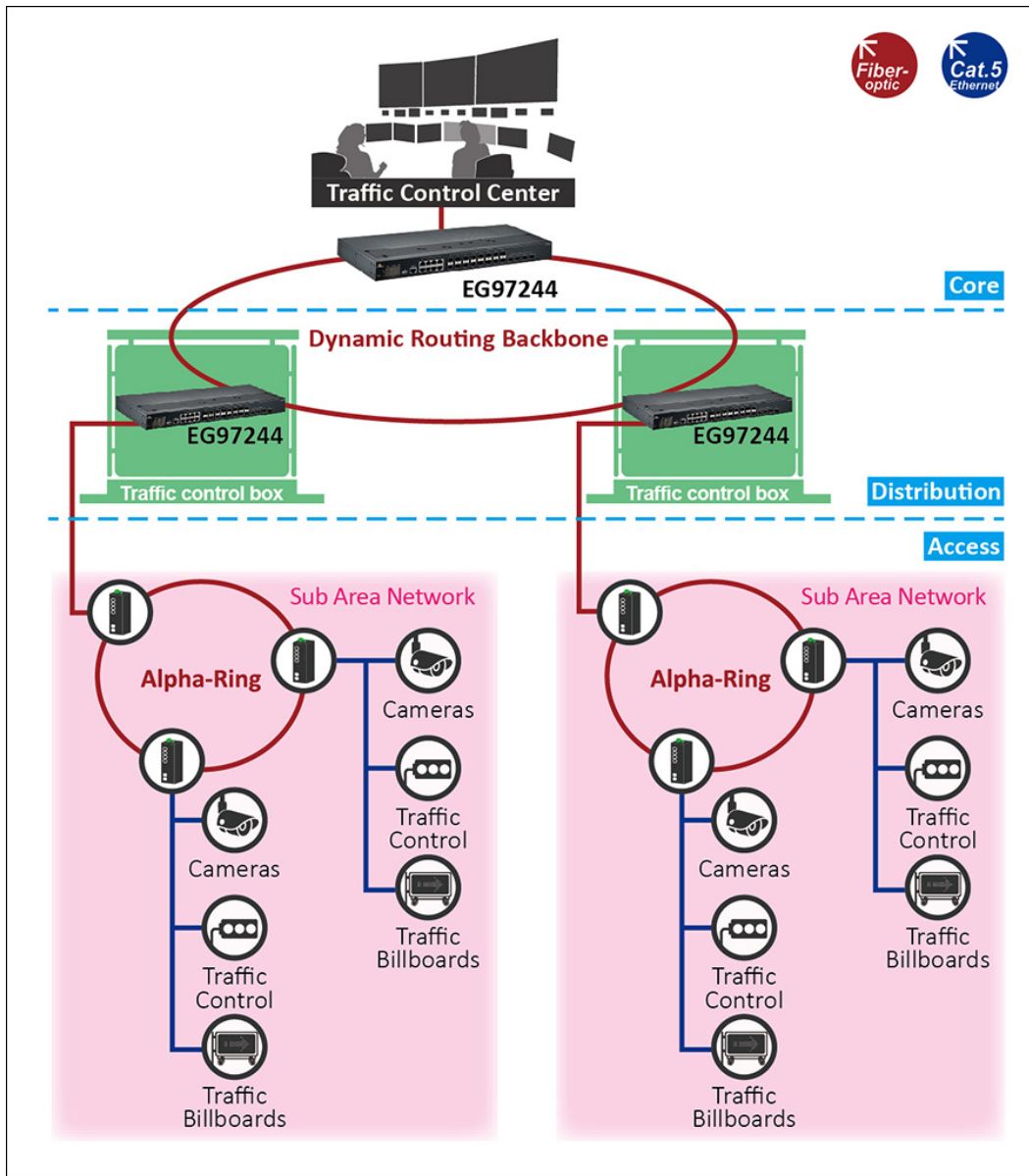
### Free Fall

FED STD 101C Method 5007.1

# 產品尺寸圖



# 產品應用圖





# 管理軟體

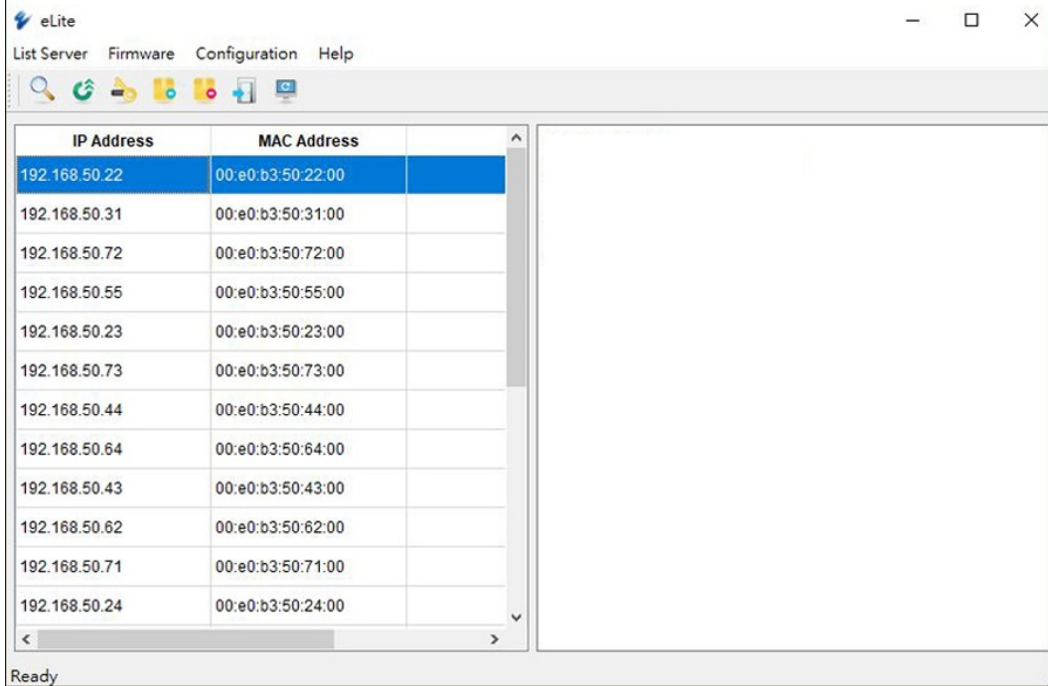
Network Management [eVue™ Network Configuration and Monitoring Tool](#)  
 Network Discovery [eLite™ Network Discovery and IP Configuration Tool](#)



The screenshot shows the EtherWAN web interface. On the left, there is a 'Device List' table with columns for IP, System Name, and Group. On the right, there is a 'Topology' diagram showing a network of interconnected devices. Below these, there is a 'Latest Events' section with a table of system events.

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	

Acknowledged	ID	Severity	Time	Service	Node	Message
✓	5107	Normal	6/28/2019, 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.



The screenshot shows the eLite application window. It has a menu bar with 'List Server', 'Firmware', 'Configuration', and 'Help'. Below the menu is a toolbar with various icons. The main area contains a table with IP addresses and MAC addresses.

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

## 訂購型號

### + Model

EG97244-4VZ	8-port 10/100/1000BASE-T + 16-port 100/1000BASE SFP + 4-port 1/10G SFP+ Hardened Managed Layer 3 Ethernet Switch
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### + Power Input Interface (Z)

TR	±48VDC Redundant (Terminal Block)
WR	100-240VAC Redundant (Terminal Block)
CR	100-240VAC Redundant (AC Inlet)

### + Accessories

Hardened 100BASE SFP Modules	<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>
Hardened Gigabit SFP Modules	<a href="http://www.etherwan.com/products/sfp-fiber-transceiver">www.etherwan.com/products/sfp-fiber-transceiver</a>
Power Supplies	<a href="http://www.etherwan.com/products/power-supplies/power-adapters">www.etherwan.com/products/power-supplies/power-adapters</a>
EX41-2750A240	Power Module for EG97244 series, 100-240VAC PSU (75W), AC Inlet

