

# EG97244 Series

24-port Gigabit and 4-port 1G/10G SFP+ Hardened Managed Layer 3 Switch



## Overview

### [When should you use an Industrial Layer 3 switch?](#)

EtherWAN's EG97244 is a hardened layer 3 switch/router, which allow for connecting networks. With multiple gigabit SFP connections for fiber along with a 10-gigabit backbone, the EG97244 provides flexibility, speed, and reliability to support networks for urban infrastructure, transportation, security, and other areas where connectivity is crucial.

EtherWAN — "When Connectivity is Crucial."

## Highlights

### + High Bandwidth and Highly Flexible Ports

16 x 100/1000M dual-rate SFP ports for multiple fiber connections  
4 x 1/10G dual-rate SFP+ ports for connections into the hub/core  
8 x 10/100/1000BASE-T RJ45 ports

### + Hardened-Grade for Non-Ventilated & Harsh Environments

Wide operating temperature range -40 to 75°C (-40 to 167°F)  
Fan-less operation  
High impact, thermal shock, and electrical noise resistance

### + Full Layer 3 Functionality

Optimized routing at hardware level  
Improved fault isolation  
Layer 3 capability connects networks together

### + Compliant Products

TAA Compliant for government projects  
NEMA TS2 rated  
UL certified for safety

### + Management/Security Features

Port control  
Storm detection and control  
Configure and monitor with eVue™ and eLite™

### + Lifetime Warranty

Complimentary Technical Support  
Free Firmware Upgrades  
Includes ECN and EOL notices

## Features

### + 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)

### + 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

#### VLANS

IEEE 802.1Q Tag VLANs  
GVRP  
GMRP

#### Link Aggregation

Static Trunk  
IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

### + 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

### + Software Properties and Performance

**Switching Fabric**  
128Gbps

**Forwarding Rate**  
95.23Mpps

**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

## Specifications

### + 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

### + 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



## 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

## + 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

## + 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

## + 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

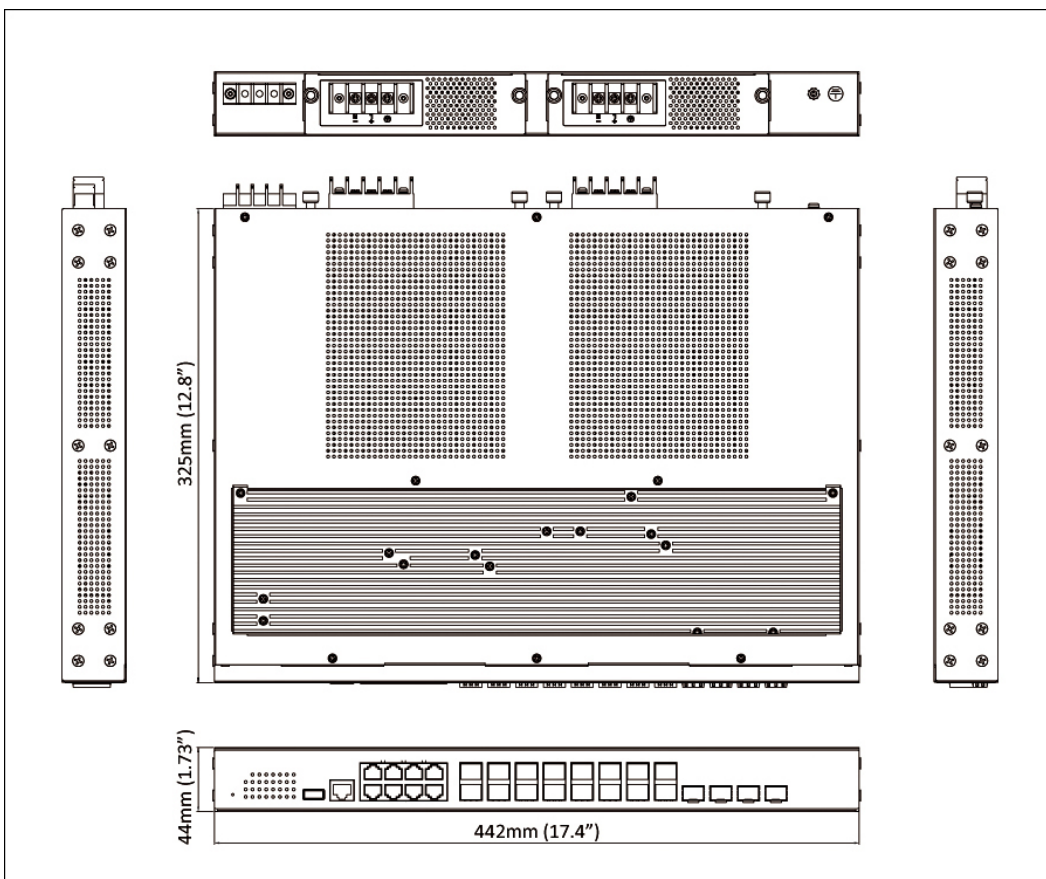
**Installation**

Mounting brackets, screws

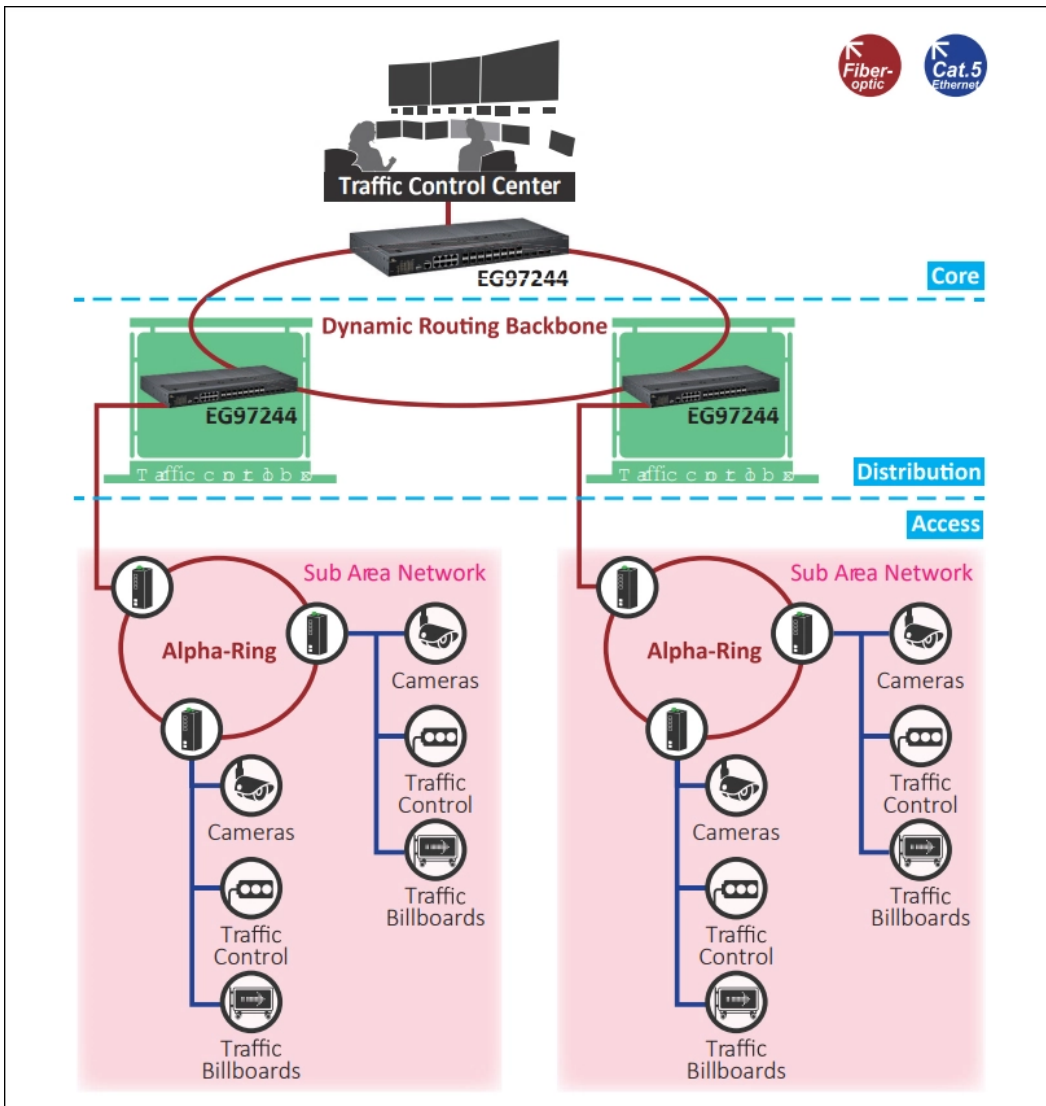
**Documentation**

Quick install guide

## Dimensions



# Application





# Software

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



The screenshot shows the EtherWAN web interface. At the top, there are navigation tabs: Home, Devices, Batch, Group, Events, and Settings. On the right, there are options for Screen Zoom and Logout. The main content area is divided into two sections: 'Device List' and 'Topology'.

**Device List:** A table with columns for IP, System Name, and Group. It lists 12 devices with their respective IP addresses and system names.

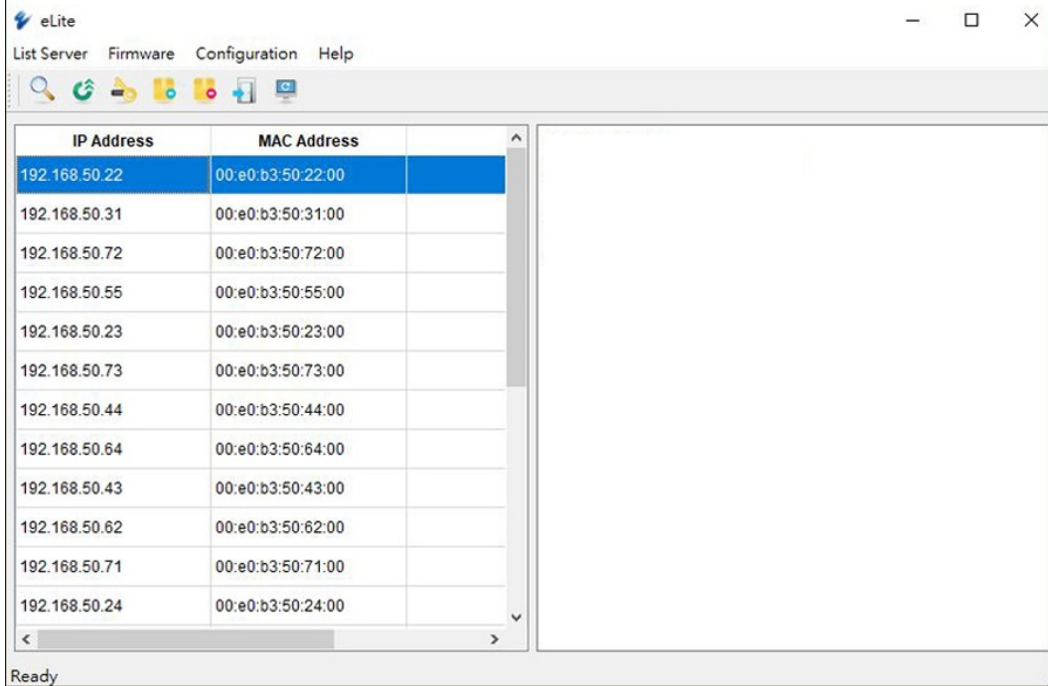
IP	System Name	Group
192.168.50.12	EG99-5012	
192.168.50.62	EX709-5062	
192.168.50.254	R50	
192.168.50.11	EG99-5011	
192.168.50.63	EX74-5063	
192.168.50.14	EX779-5014	
192.168.50.61	EX71v2-5061	
192.168.50.44	EX71-5044	
192.168.50.64	EX73-5064	
192.168.50.34	EX739-5034	

Below the table are 'Previous' and 'Next' buttons, and a page indicator showing 'Page 1 of 3'.

**Topology:** A network diagram showing various nodes connected in a mesh-like structure. A legend indicates that green circles represent 'Online' devices, white circles represent 'Offline' devices, and red circles represent 'Event' devices.

**Latest Events:** A table showing recent system events.

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. At the top, there are menu items: List Server, Firmware, Configuration, and Help. Below the menu is a toolbar with several icons. The main content area is a table with two columns: 'IP Address' and 'MAC Address'.

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

At the bottom left of the window, the status 'Ready' is displayed.

## Ordering Info

### + 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

