

## 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 + Compliant Products

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

### + 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

### + Management/Security Features

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

### + Full Layer 3 Functionality

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

### + 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)

### + 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

### 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

## 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

## + Power

### Input

- VTR:  $\pm 48$ VDC 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

## + 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

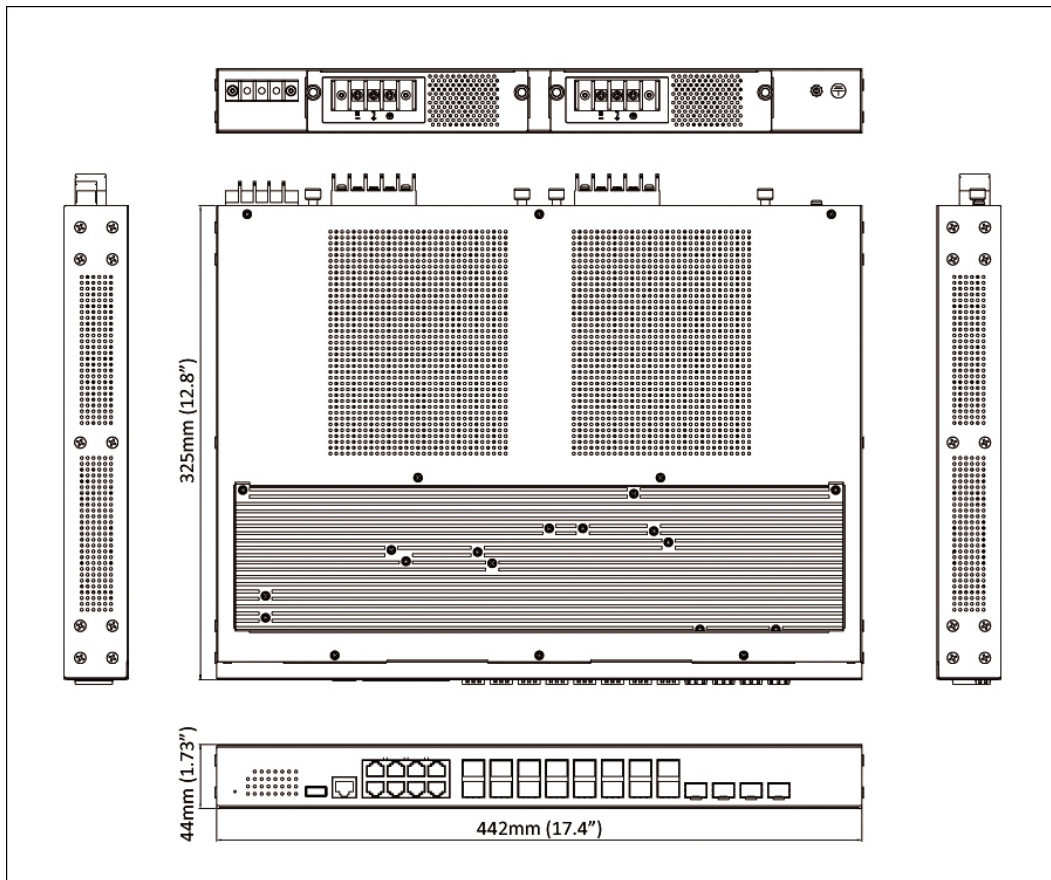
### Shock

- IEC 60068-2-27

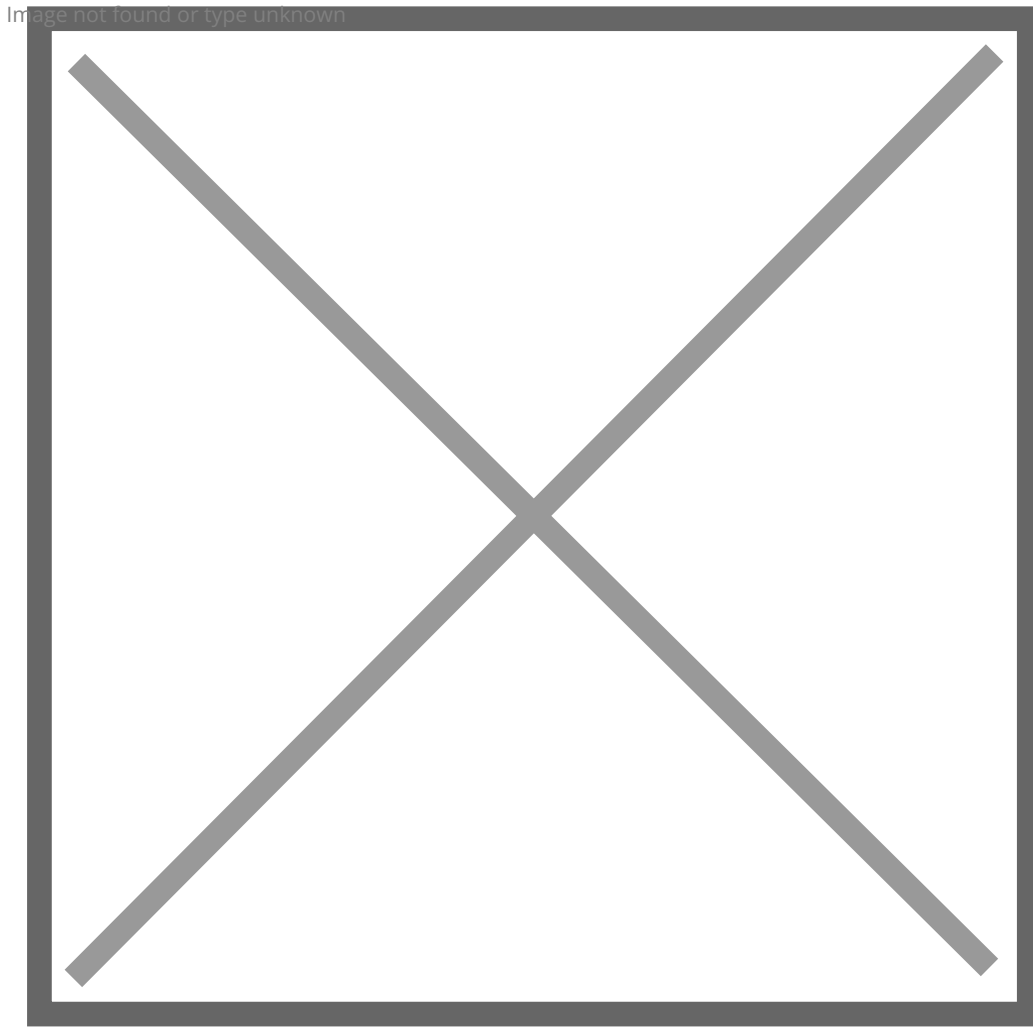
### Free Fall

- FED STD 101C Method 5007.1

# Dimensions



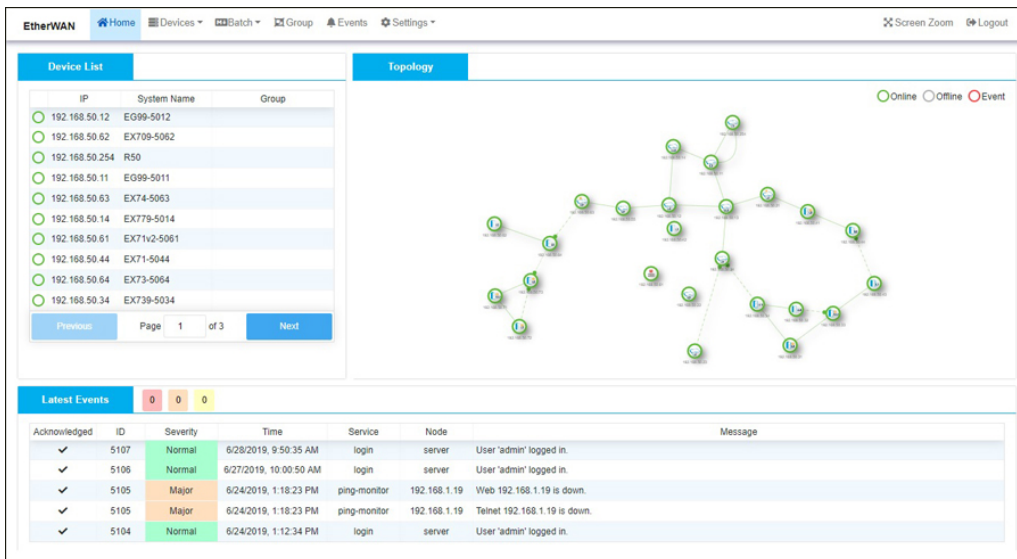
## Application



# Software

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

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



**Device List**

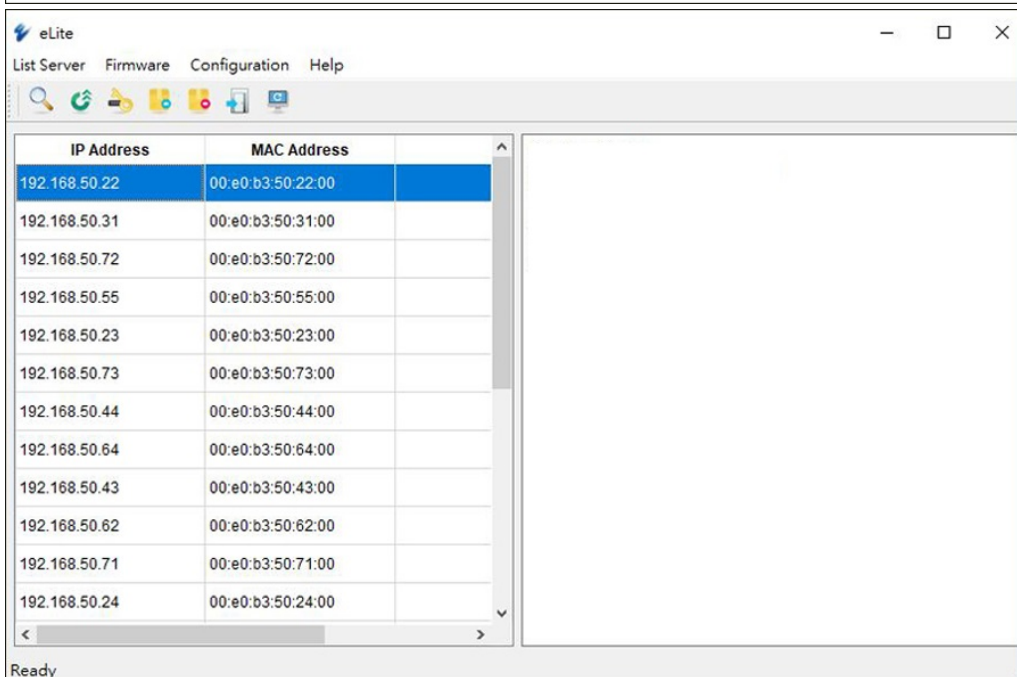
IP	System Name	Group
192.168.50.12	EG99-5012	
192.168.50.62	EX709-5062	
192.168.50.254	R50	
192.168.50.11	EG99-5011	
192.168.50.63	EX74-5063	
192.168.50.14	EX779-5014	
192.168.50.61	EX71v2-5061	
192.168.50.44	EX71-5044	
192.168.50.64	EX73-5064	
192.168.50.34	EX739-5034	

**Topology**

Legend: Online (Green circle), Offline (Grey circle), Event (Red circle)

**Latest 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.



**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

## 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



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