

# EX75900 Series

Hardened Managed 28-Port Gigabit PoE Ethernet Switch



## Overview

The EtherWAN EX75900 Series is a hardened, rackmount managed PoE Ethernet switch platform designed for mission-critical industrial and infrastructure networks. Equipped with 24 10/100/1000BASE-T(X) PoE ports supporting IEEE 802.3af/at/bt with up to 90W per port (Type 4) and a 720W total PoE power budget, along with 4 1G/10G SFP+ uplink ports, the EX75900 Series delivers high bandwidth, flexible deployment, and dependable performance.

Engineered for harsh environments and continuous operation, the EX75900 Series is ideal for urban infrastructure, intelligent transportation systems, public safety and security deployments, and other applications requiring robust, high-power PoE connectivity.

EtherWAN — "When Connectivity is Crucial."

## Highlights

### + High Bandwidth and Versatility

- 24 10/100/1000BASE-T(X) ports for High bandwidth connections
- Up to 4 1G/10G SFP+ uplink ports for fiber connections
- Full capacity switching running at full duplex

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

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

### + Lite Layer 3 Functionality

- Static routing, RIP v1/v2, and OSPF
- Redundancy with VRRP
- Reduces amount of broadcast traffic

### + PoE Features

- Up to 90W per port (bt Type 4) with 720W total PoE budget
- PoE watchdog monitors status of connected PoE devices

### + Management/Security Features

- Secure management with Multi-User Privilege
- 802.1x port-based network access control and remote authentication through RADIUS and TACACS+
- Configure and monitor with eVue™ and eLite™

### + Support

- Complimentary Technical Support
- Free Firmware Upgrades and notifications
- Limited Lifetime Warranty

## 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

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

SSL and HTTPS for web security

ACL (Access Control List, up to 4096 entries)

IPSG (IP Source guard)

DAI (Dynamic ARP Inspection)

DHCP Snooping

## + 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

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

## + 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

## Specifications

### + Interface

#### Ethernet

- 24 x 10/100/1000BASE-T(X)
- 4 x 1G/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

### 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

### 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, 30W, 60W PD devices.

### PoE Modes

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

### PoE Power Output

- Port: Up to 60W/port
- 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

### Documentation

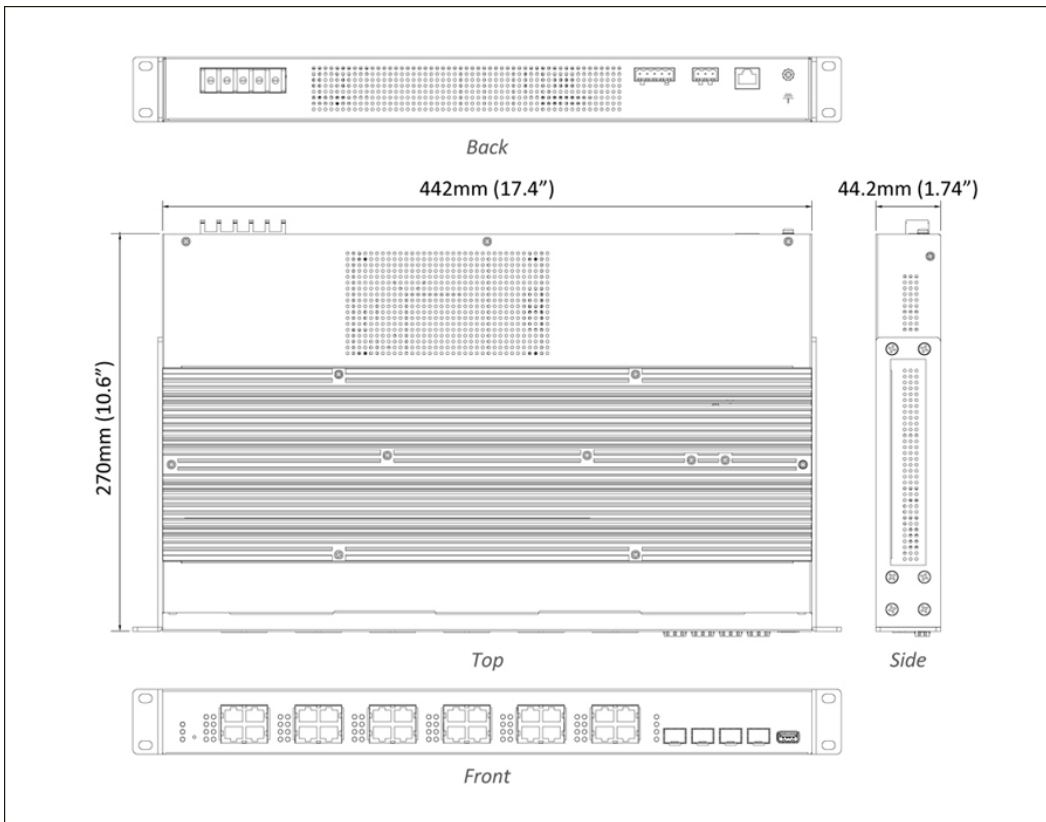
- Quick Install Guide

## + MPN

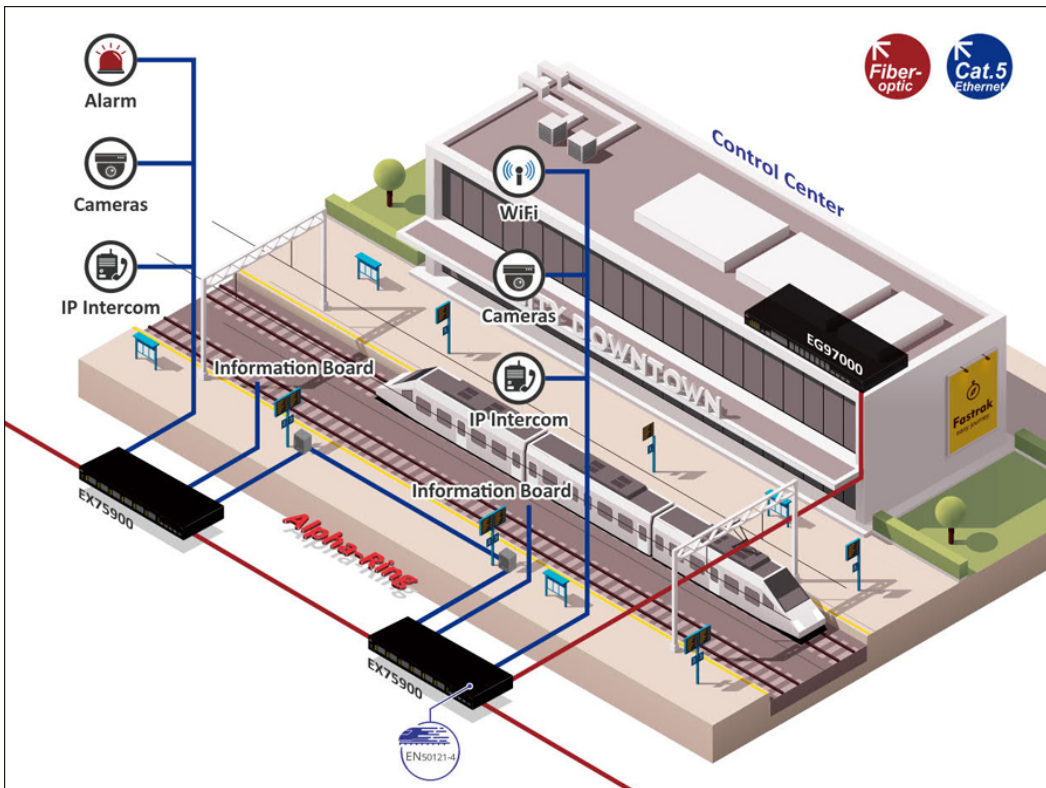
### EX75964-0VTU

- 1451961

## Dimensions



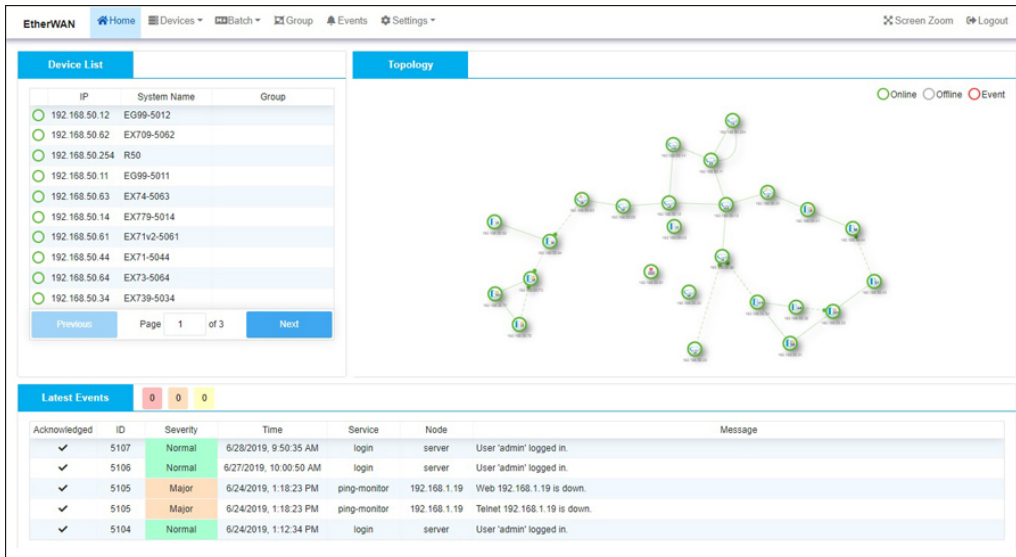
# Application



# Software

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

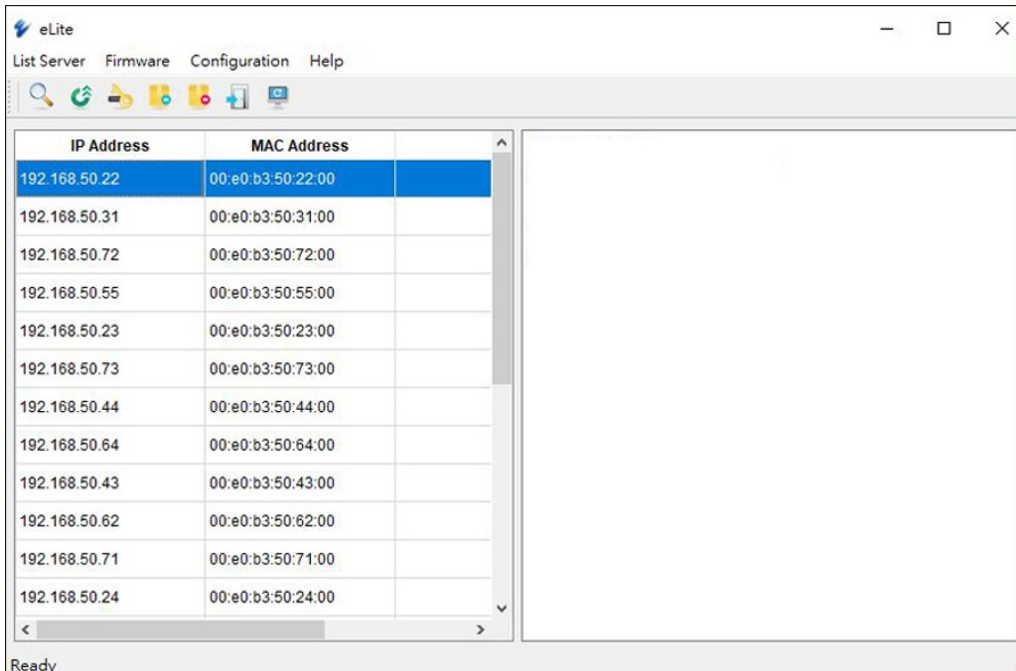
**Network Discovery** [eLite™ Network Discovery and IP Configuration Tool](#)



The screenshot shows the EtherWAN web interface. 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 nodes. 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	Teinet 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 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

## Ordering Info

### + Model

**EX75964-0VTU** 24-port 10/100/1000BASE-T(X) PoE + 4-port 1G/10G SFP+

**EX75960-0VTU** 24-port 10/100/1000BASE-T(X) PoE + 4-port 1000BASE SFP

### + Accessories

**Hardened 100BASE SFP Modules** [www.etherwan.com/products/sfp-fiber-transceiver](http://www.etherwan.com/products/sfp-fiber-transceiver)

**Hardened Gigabit SFP Modules** [www.etherwan.com/products/sfp-fiber-transceiver](http://www.etherwan.com/products/sfp-fiber-transceiver)

**DIN-Rail Power Supplies** [www.etherwan.com/products/din-rail-power-supply](http://www.etherwan.com/products/din-rail-power-supply)



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