

# EX75000 Series

Hardened Managed 24-port 10/100BASE-TX +4-port Gigabit Ethernet PoE Switch



## Overview

EtherWAN's EX75000 Series provides a hardened 28-port switching platform supporting IEEE 802.3at Power over Ethernet, high performance switching with robust management features required for mission-critical and harsh environments where sustained connectivity is crucial.

The EX75000 Series is equipped with 24 10/100BASE-TX PoE ports, in combination with two Gigabit PoE ports and two Gigabit SX/LX/BX/WDM Fiber ports with SFP options.

The IEEE 802.3at PoE ports provide up to 30W/port with a total power budget of 420W, making the switch truly versatile for connecting with PoE Powered Devices (PD) with different bandwidth and power consumption requirements such as outdoor PTZ dome cameras, wireless access points, and way-side communication devices.

1U rack mountable, the EX75000 Series is equipped with EtherWAN's Alpha-Ring self-healing ring technology providing less than 15ms fault recovery time. Users are able to access management features such as port security, IGMP snooping, port-based VLAN, GARP protocols, Link Aggregation, via web browser, Telnet, SSH, SNMP, RMON, TFTP, and RS-232 console interfaces. With the hardened specifications, the EX75000 Series is designed to operate at -40 to 75°C in harsh environments, where high ESD, shock, and vibration may be present.

EtherWAN — "When Connectivity is Crucial."

## Spotlight

### • High-Density PoE Switch

- Up to 26 IEEE 802.3at PoE ports
- 4 Gigabit (SX/LX/SFP) ports for high-bandwidth communication

### • Intelligent Data and Power Management

- Optimize network performance with QoS, VLAN and PoE scheduling, etc.
- Network redundancy secured with EtherWAN's Alpha-Ring network fault recovery time <15ms

### • Secure Remote Access

- IEEE 802.1x, ACL (Access Control List), and RADIUS support

# Software Features

## Management

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- Interface
  - CLI, Telnet and Web Browser
  - SNMP v1/v2c/v3
- Firmware and configuration upgrade and backup via TFTP
- Supports DHCP Server/Client
- RMON (Remote Monitoring)
- Port mirroring: TX/RX and both
- SFP transceivers support Digital Diagnostics Monitoring (DDM)
- NTP (Network Time Protocol) time synchronization
- IEEE 802.1ab LLDP (Link Layer Discovery Protocol)

## Security

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- MAC address filtering
- Enable/Disable port
- Storm control (Broadcast and multicast types)
- IEEE 802.1x LAN Access control
- Remote authentication through RADIUS
- SSH for CLI and Telnet security
- SSL for web security
- ACL

## Quality of Service (QoS)

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- Priority Queues: 4 queues per port
- Traffic classification based on IEEE 802.1p CoS, DSCP, WRR (Weighted Round Robin) and strict mode
- Rate Limiting (Ingress/Egress)

## Layer 2 Features

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- Auto-negotiation for port speed and duplex mode
- Flow Control
  - IEEE 802.3x full duplex mode
  - Back-Pressure half duplex mode
- Redundant Protocol
  - IEEE 802.1D Spanning Tree Protocol (STP)
  - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
  - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
  - EtherWAN's Alpha-Ring with network fault recovery (<15ms)
- VLANs
  - Port-based VLANs
  - IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
  - GVRP (GARP VLAN Registration Protocol)
  - GMRP (GARP Multicast Registration Protocol)
- Link Aggregation
  - Static Trunk (8 groups, support MAC base)
  - IEEE 802.3ad Link Aggregation Control Protocol
- IGMP Snooping
  - IGMP Snooping v1/v2/v3

## Performance

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- Switching Capability: 12.8Gbps
- Packet Buffer Size: 3M bits
- MAC Address Table: 8K
- Jumbo frame: 2048 bytes

# Hardware Specifications

## Technology

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### Standards

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3ab 1000BASE-T
- IEEE 802.3z 1000BASE-SX/1000BASE-LX
- IEEE 802.3x Full duplex and flow control
- IEEE 802.1p QoS
- IEEE 802.1Q Tag VLANs
- IEEE 802.1w RSTP
- IEEE 802.1x Port-based Network Access Control
- IEEE 802.1s MSTP
- IEEE 802.3ad LACP
- IEEE 802.3af/at Power over Ethernet (PoE)

### Forward and Filtering Rate

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

### Packet Buffer Memory

- 3M bits

### Processing Type

- Store-and-Forward
- Auto Negotiation
- Half-duplex back-pressure and IEEE 802.3x full-duplex flow control
- Auto MDI/MDIX

### Address Table Size

- 8192 MAC addresses

## Power

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### Input

- Terminal Block: 55 (48-57VDC)

### Power Consumption

- Max. 30W (without PoE)
- PoE Power Budget: 420W (depends on power input)
  - Port 1 to 8, 10/100 PoE Ports: 120W
  - Port 9 to 16, 10/100 PoE Ports: 120W
  - Port 17 to 24, 10/100 PoE Ports: 120W
  - Port 25 to 26, 10/100/1000 PoE Ports: 60W

### PoE Technology

- Alternative B
- Pins 7/8(-), 4/5(+)

### PoE Power Output

- IEEE 802.3af: up to 15.4W/port, 47-57VDC, 350mA Max.
- IEEE 802.3at: up to 30W/port, 52-57VDC, 600mA Max.

## Mechanical

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### Casing

- Metal Case
- IP30

### Dimensions

- 442 x 343 x 44.2mm (W x D x H)  
(17.4" x 13.5" x 1.74")

### Weight

- 5.15Kg (11.35lbs.)

### Installation

- Rack mounting

## Interface

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### Ethernet Port

- 10/100BASE-TX: 24 ports
- Gigabit: 4 ports

### Console Port

- Port: One DB9 RS-232 port

### Alarm Contact

- One relay output with current 1A/24VDC

### LED Indicators

- Per Unit: Power (Green), Alarm (Red)
- Per Port: Link/Activity (Green)

## Environment

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### Operating Temperature

- -40 to 75°C (-40 to 167°F)  
Tested @ -40 to 85°C (-40 to 185°F)

### Storage Temperature

- -45 to 85°C (-49 to 185°F)

### Ambient Relative Humidity

- 5% to 95% (non-condensing)

## Regulatory Approvals

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### ISO

- Manufactured in an ISO 9001 facility

### EMI

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### FCC Part 15B Class A

### VCCI Class A

### EN 61000-6-4

### EN 55022

### EMS

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### EN 61000-6-2

- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (RFI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

### Environmental Test Compliance

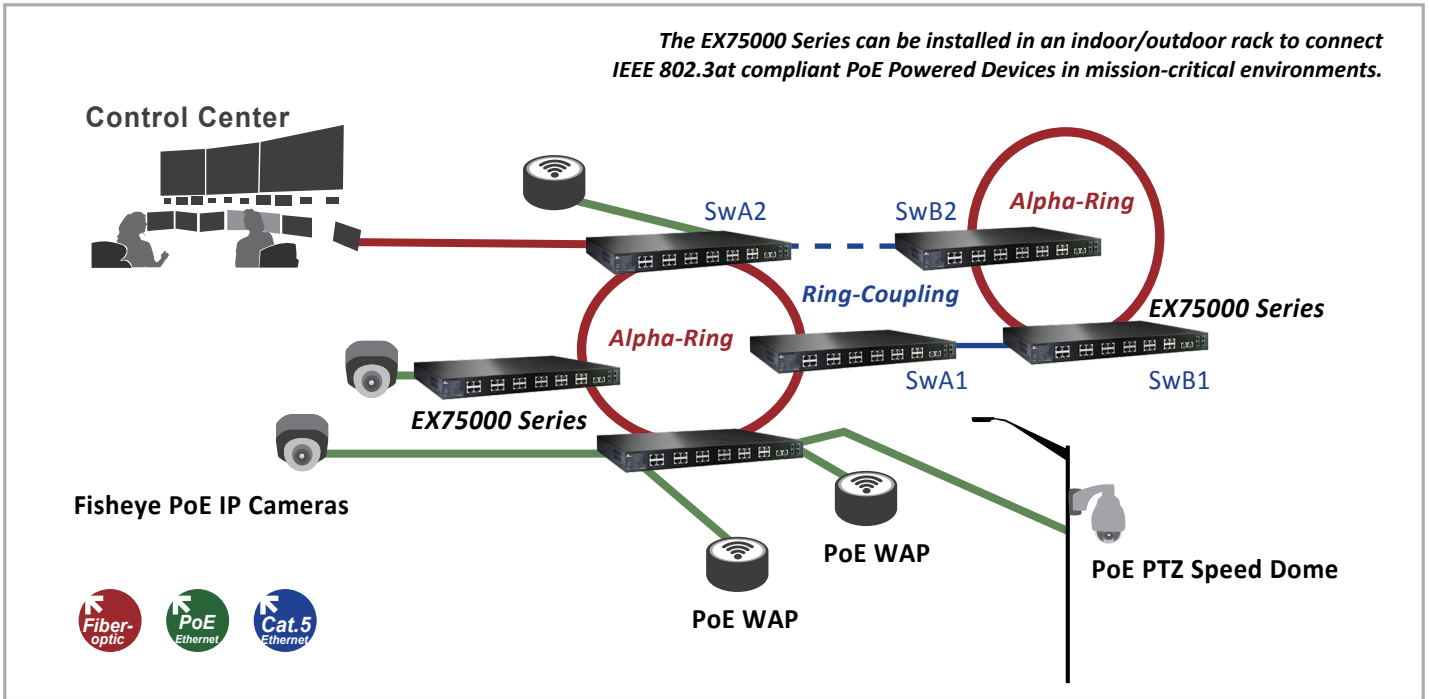
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### IEC 60068-2-6 Fc (Vibration)

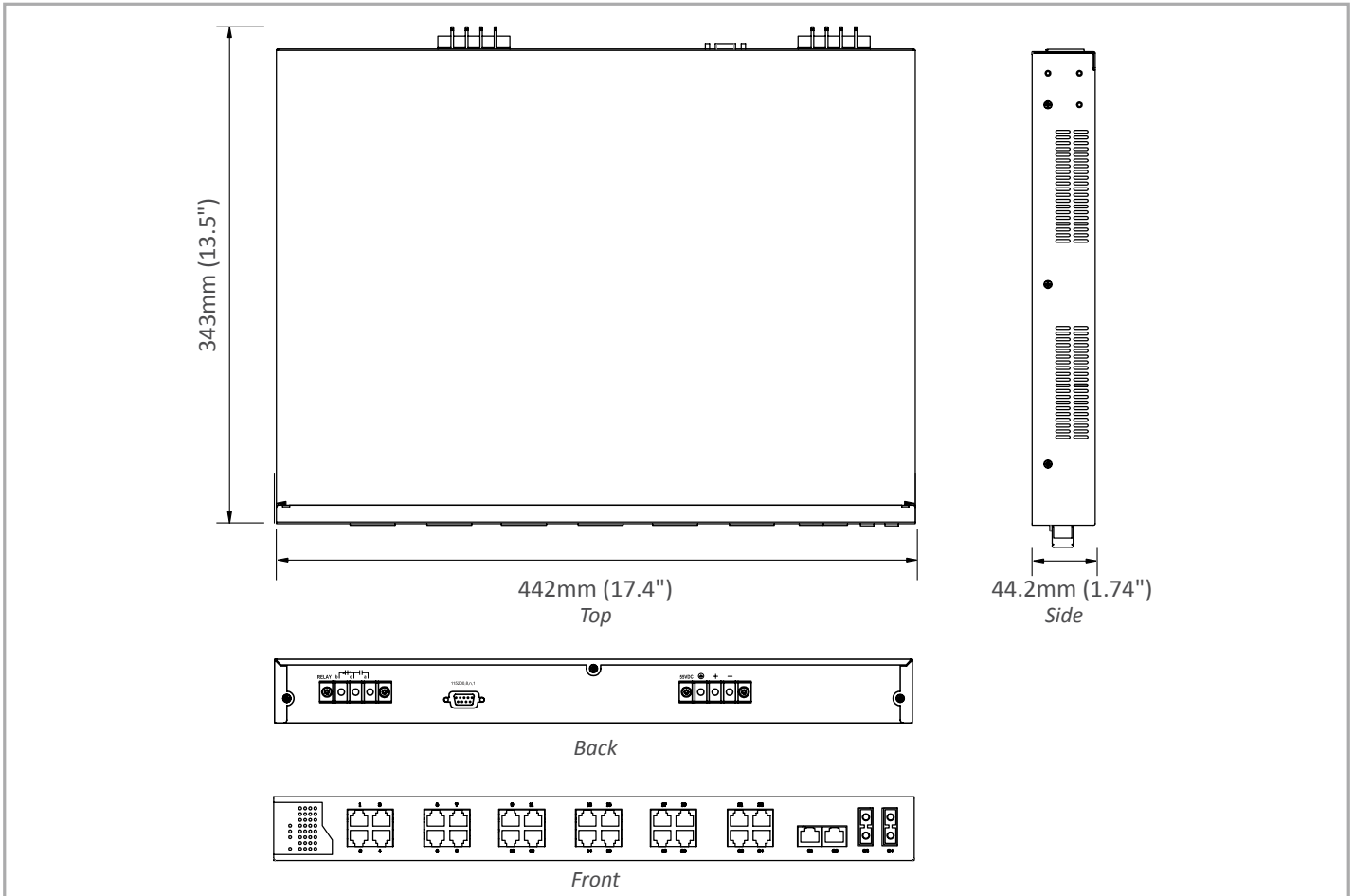
### IEC 60068-2-27 Ea (Shock)

# Application Diagram

The EX75000 Series can be installed in an indoor/outdoor rack to connect IEEE 802.3at compliant PoE Powered Devices in mission-critical environments.



# Dimensions



## Ordering Information

### Model

<b>EX75604-001GT</b>	24-port 10/100BASE-TX PoE +2-port 10/100/1000BASE-T PoE +2-port 1000BASE-T Hardened Managed Ethernet Switch
<b>EX75604-04VGT</b>	24-port 10/100BASE-TX PoE +4-port 1000BASE SFP Hardened Managed Ethernet Switch

\* Rack mounting kit included.

### Optional Accessories

<b>SDR-480-48</b>	480W/10A DIN-Rail 48VDC Industrial Power Supply
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