

EX73000 Series

Hardened Managed 16-port 10/100BASE with 2-port Gigabit combo Ethernet Switch



Highlights

+ 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

+ Compliance

EN 50121-4 certified for railway applications
NEMA TS2 rated
UL certified for safety

+ Management/Security Features

Port control
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
Limited Lifetime Warranty

Overview

EtherWAN's EX73000 Series is a hardened DIN-rail mounted managed Ethernet switch platform. Equipped with 16 10/100BASE-TX and 2 gigabit fiber ports along with Class 1 Div 2 certification, the EX73000 Series provides flexibility, speed, and reliability to support networks for hazardous locations and other areas where connectivity is crucial.

EtherWAN — "When Connectivity is Crucial."

Features

+ Interface

- CLI, Telnet, Web Browser
- SNMP v1/v2c/v3

+ Management

- Firmware upgrade
- Configuration backup via TFTP
- DHCP Server/Client
- RMON (Remote Monitoring): group 1, 2, 3, 9
- Port Mirroring: TX/RX and both
- NTP (Network Time Protocol) synchronization
- IEEE 802.1ab LLDP (Link Layer Discovery Protocol)
- IPv4/IPv6

+ Security

- 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
- System log (Remote/Local)
- Multi-level user account/password against unauthorized configuration

+ Quality of Service (QoS)

- Priority Queues: 4 queues per port
- Traffic classification based on IEEE 802.1p CoS, DSCP, WRR 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 (<15ms)

VLANs

- Port-based VLANs
- IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
- GVRP
- GMRP

Link Aggregation

- Static Trunk (2 groups, support MAC base)
- IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

+ Performance

- Switching Capability
- 7.2Gbps

Specifications

+ Interface

Ethernet

16 x 10/100BASE-T(X)

0, 1 or 2 x Gigabit

Console

1 x DB9 RS-232

Alarm Contact

1 x Relay output, current capacity 0.6A/30VDC

LED Indicators

Per Unit: Power 1, Power 2

Per Port: Link/Activity (Green: Copper, Orange: Fiber)

+ Technology

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 PNAC

Forward/Filtering Rate

14,880pps for 10Mbps

148,810pps for 100Mbps

1,488,100pps for 1000Mbps

Packet Buffer Memory

12M 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

16K MAC Addresses

+ Power

Input

12-48VDC Redundant (Terminal block)

Power Consumption

8.06W 0.336A@24VDC

Protection
Reverse Polarity Protection

+ Physical

Casing Material
Aluminum

IP Rating
IP30

Dimensions
60 x 125 x 145mm (W x D x H)
2.56" x 4.92" x 5.71"

Weight
1.19kg

Installation Type
DIN-rail mounting

+ Environmental

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

Storage Temp.
-45 to 85°C (-49 to 185°F)

Relative Humidity
5% to 95% (non-condensing)

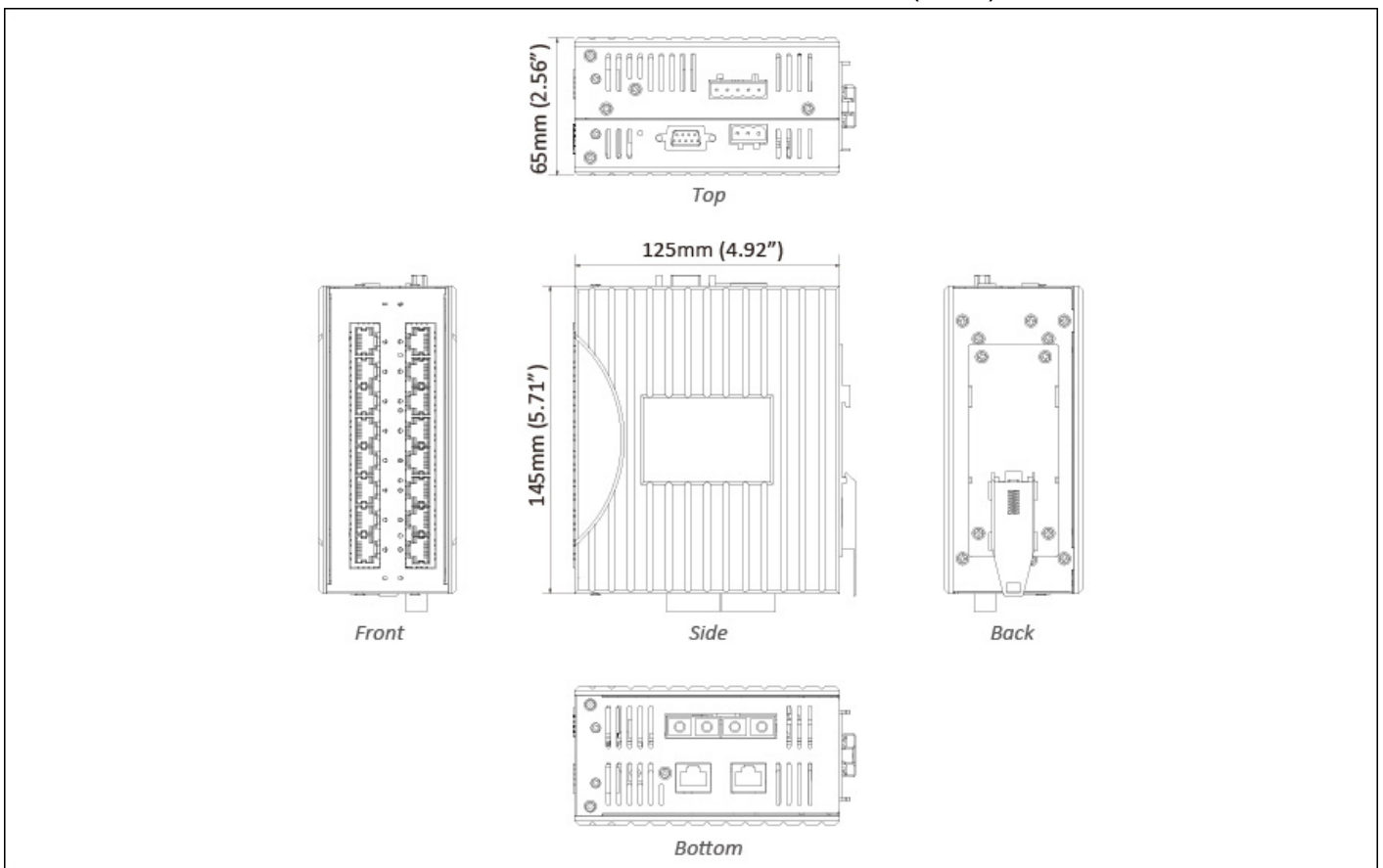
+ Regulatory

ISO
Manufactured in ISO-9001 facility

EMI
FCC Part 15B Class A
EN 61000-6-4
EN 61000-3-2
EN 61000-3-3

EMS
EN 61000-6-2
EN 61000-4-2 (ESD)
EN 61000-4-3 (Radiated RFI)
EN 61000-4-4 (Burst)

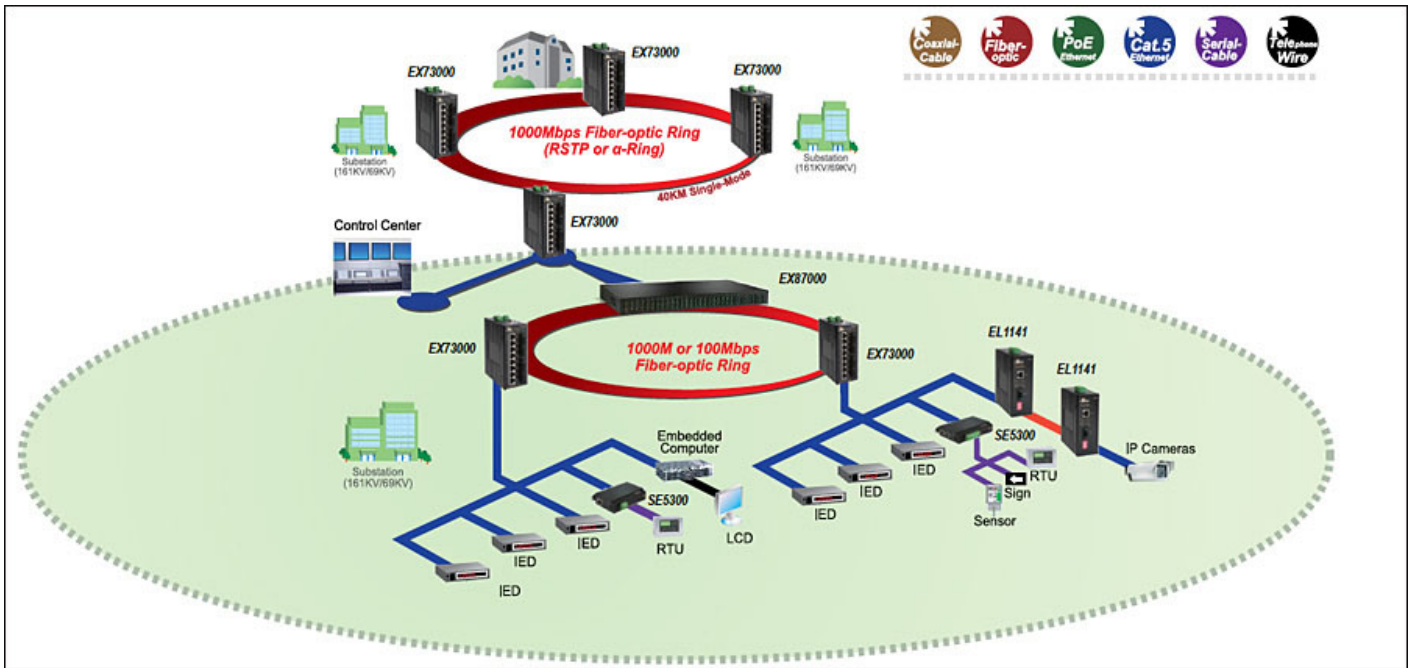
Dimensions



Device
Ethernet Switch

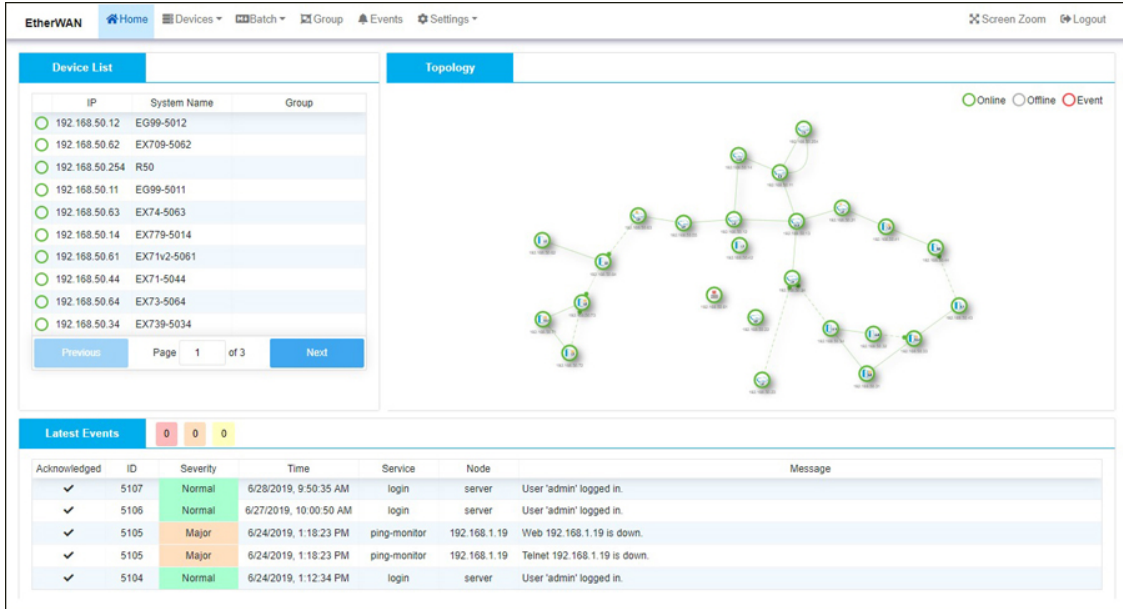
Documentation
Quick Install Guide

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 links 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 contains 12 entries, all with green status indicators.

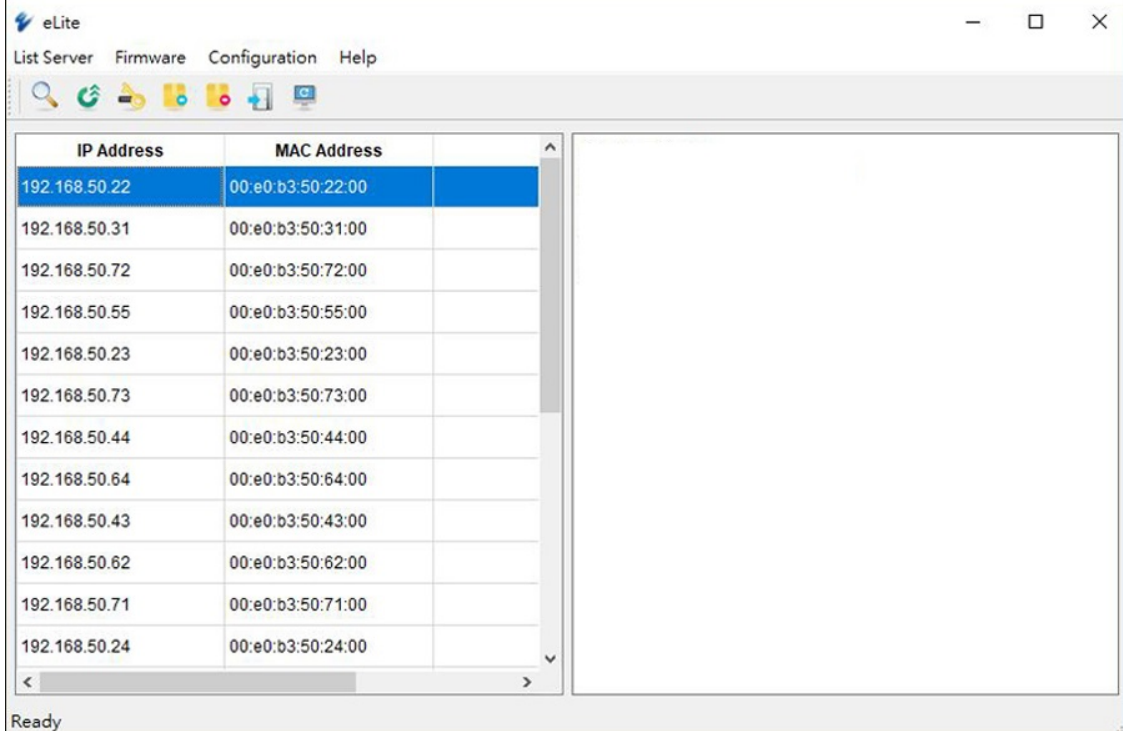
IP	System Name	Group
192.168.50.12	EG99-5012	
192.168.50.62	EX709-5062	
192.168.50.254	R50	
192.168.50.11	EG99-5011	
192.168.50.63	EX74-5063	
192.168.50.14	EX779-5014	
192.168.50.61	EX71v2-5061	
192.168.50.44	EX71-5044	
192.168.50.64	EX73-5064	
192.168.50.34	EX739-5034	

Below the table are 'Previous', 'Page 1 of 3', and 'Next' buttons.

Topology: A network diagram showing various nodes connected in a mesh-like structure. A legend indicates Online (green circle), Offline (grey circle), and Event (red circle).

Latest Events: A table with columns for Acknowledged, ID, Severity, Time, Service, Node, and Message.

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. The title bar reads 'eLite'. The menu bar includes 'List Server', 'Firmware', 'Configuration', and 'Help'. Below the menu bar are several icons representing different functions. The main area is a table with columns for 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

The status bar at the bottom left shows 'Ready'.

Ordering Info

+ Model

EX73400-00B 16-port 10/100BASE-TX
EX73402-0YB 16-port 10/100BASE-TX + 2-port Gigabit (Combo)

* DIN-Rail mounting kit included.

+ Gigabit Fiber Options (Y)

1 10/100/1000BASE-TX (No Gigabit Fiber port supported)
3 Combo port: 10/100/1000BASE-TX with 1000BASE-SX (SC) - 550m
4 Combo port: 10/100/1000BASE-TX with 1000BASE-SX (SC) - 2Km
5 Combo port: 10/100/1000BASE-TX with 1000BASE-SX (ST) - 550m
A Combo port: 10/100/1000BASE-TX with 1000BASE-LX (SC) - 10Km
B Combo port: 10/100/1000BASE-TX with 1000BASE-LX (SC) - 20Km

+ Accessories

Hardened SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
DIN-Rail Power Supplies	www.etherwan.com/products/din-rail-power-supply (*)
*Recommended Power Supply	HDR-30-24 30W 24VDC DIN-Rail Power Supply
EB-232	Configuration Backup and Restoration Tool

