

EX73000 シリーズ

広範囲動作温度対応産業用/管理型 16ポート 10/100BASE +2ポート ギガビット コンボ イーサネット スイッチ



概要

EtherWAN の EX73000 シリーズは広範囲動作温度対応/管理型 最大18ポート運用が可能なイーサネットスイッチです。通信の安定性が不可欠な過酷な環境に対応する堅牢な管理機能を備えたハイパフォーマンスな製品です。

EX73000 シリーズは 10/100BASE ファスト イーサネット16ポートを装備し、ギガビット SX/LX/BX/WDM 光コンボ ポート2個を選択できます。DIN レールに対応した EX73000 シリーズはリング構成の1ルートが遮断されても 15ms 以内で自動復帰するAlpha-Ring という独自リングプロトコルを搭載していて、高度な接続信頼性が必要な環境に柔軟に対応します。

ポート セキュリティやIGMP、VLAN、GARP プロトコル、LACP、などの管理機能はブラウザ経由で設定可能です。Telnet、SSH、SNMP、RMON、TFTP、RS-232 コンソール接続などにも対応します。

EtherWAN — "When Connectivity is Crucial."

特長

+ 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
Configure and monitor with eVue™ and eLite™

+ Support

Complimentary Technical Support
Free Firmware Upgrades
Limited Lifetime Warranty

機能

+ 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

仕様

+ 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)

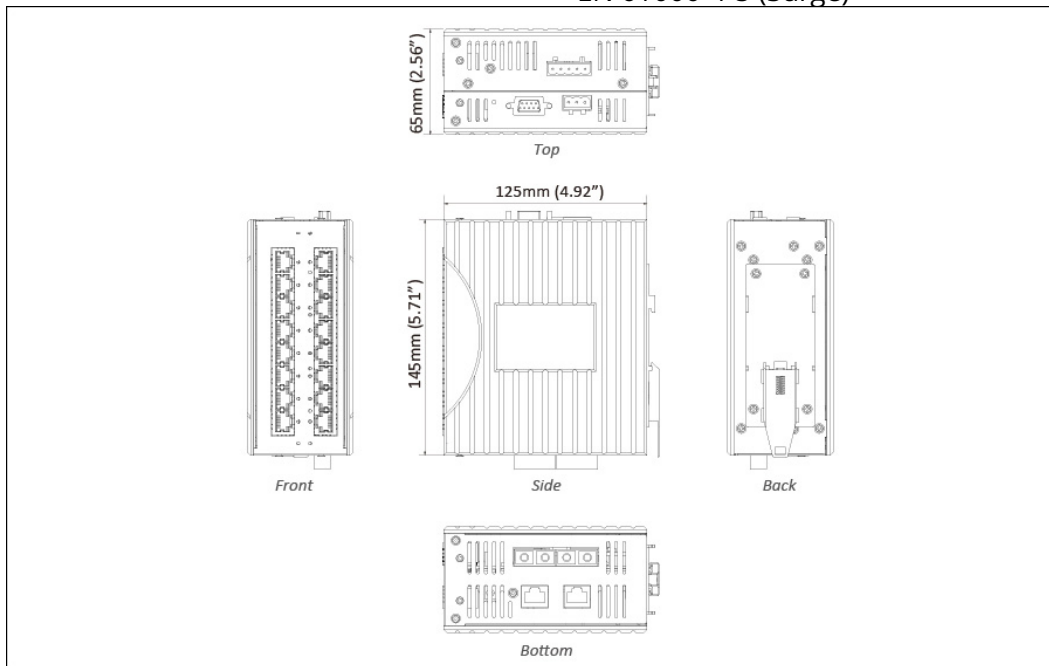
+ Regulatory

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)
EN 61000-4-5 (Surge)

寸法図



Limited Lifetime

Details

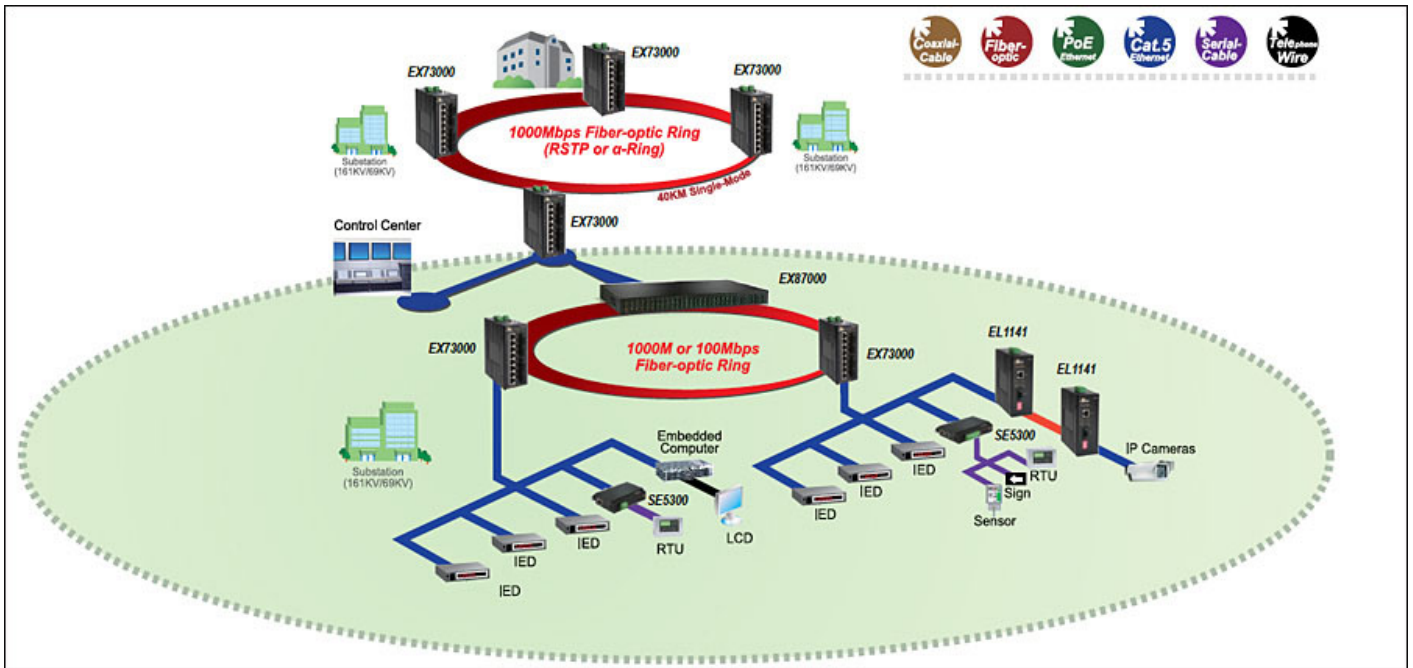
www.etherwan.com/support/warranty-policy

+ What's Included

Device
Ethernet Switch

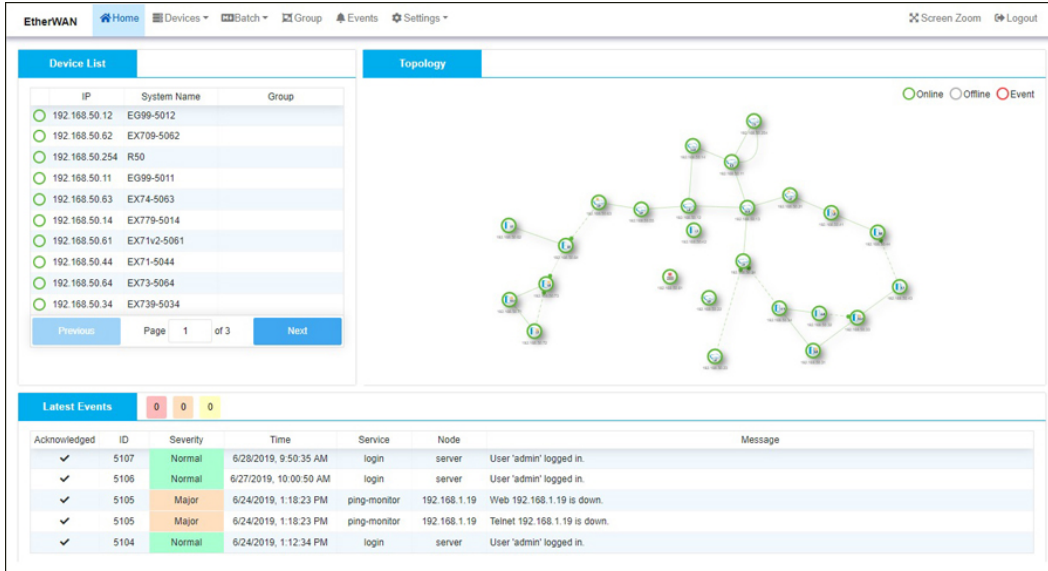
Documentation
Quick Install Guide

応用例



ソフトウェア

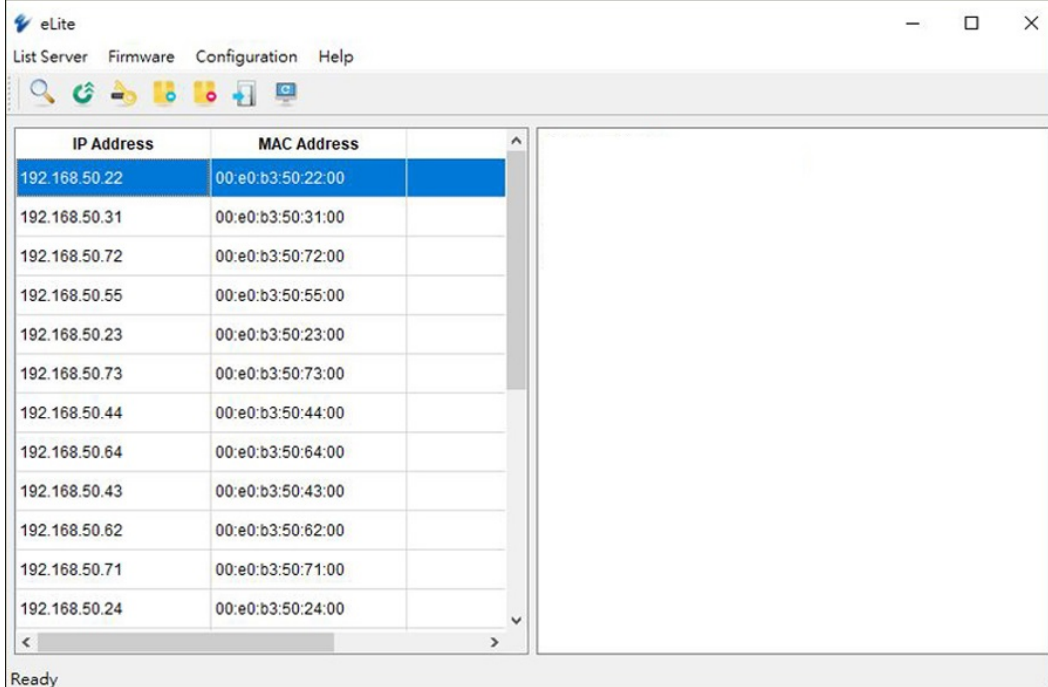
Network Management [eVue™ Network Configuration and Monitoring Tool](#)
 Network Discovery [eLite™ Network Discovery and IP Configuration Tool](#)



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 event logs.

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	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. 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 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

製品型番

+ 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 EB-232	HDR-30-24 30W 24VDC DIN-Rail Power Supply Configuration Backup and Restoration Tool

