EX73900E シリーズ

広範囲動作温度対応産業用/管理型 8/12ポート 10/100/1000BASE-T(X) +2/4ポート 100/1000BASE SFP ギガビット イーサネットスイッチ



概要

EtherWANのEX73900E シリーズは広範囲動作温度対応、DINレール型、ギガビット12ポートまで装備でき、また4つのデュアルレートSFPポートを備えています。安定した通信が不可欠な過酷環境に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。都市インフラ、交通、変電所、セキュリティなどのネットワークに柔軟性と信頼性を提供します。

IEC 62443-4-2認証 — 重要な産業及びインフラ用途におけるサイバーレジリエンスと運用信頼性を向上させます。

EtherWAN — "When Connectivity is Crucial."

特長

High Bandwidth and Versatility

8 or 12 10/100/1000BASE-T(X) ports for High bandwidth connections

Up to 4 Dual-rate 100/1000BASE SFP uplink ports for fiber connections

Full capacity switching running at full duplex

Compliance

IEC 61850-3/IEEE 1613 certified for power substations

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)

Fanless operation

High impact, thermal shock, and electrical noise resistance

Management/Security Features

Port control

Dying gasp feature provides SNMP trap upon power off

Configure and monitor with eVue™ and eLite™

Lite Layer 3 Functionality

Static routing, RIP v1/v2, and OSPF support

Redundancy with VRRP

Reduces amount of broadcast traffic

Support

Complimentary Technical Support

Free Firmware Upgrades

Limited Lifetime Warranty

機能

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

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

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)

Software Properties and Performance

Switching Fabric

32Gbps

Forwarding Rate

23.5Mpps

Total VLAN Entries

256 (4096 VID)

Jumbo Frame Size

9KB

MAC Table Size

16K

Packet Buffer Memory

12M bits

仕様

Interface

Ethernet

8 or 12 x 10/100/1000BASE-T(X)

2 or 4 x 100/1000BASE 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

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

LED Indicators

Per Unit: Power 1, Power 2, Alarm

Per Port: Link/Activity

Power

Input

12-48VDC Redundant (Terminal block)

Power Consumption

20W Max

Protection

Reverse Polarity Protection

Overload Current Protection

Regulatory

ISO

Manufactured in ISO-9001 facility

EMI

FCC Part 15B Class A

VCCI Class A

EN 61000-6-4 / EN 61000-3-2 / EN 61000-3-3

BSMI

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)

EN 61000-4-6 (Induced RFI)

EN 61000-4-8 (Magnetic field)

Safety

UL 61010

Cybersecurity

IEC 62443-4-1 / IEC 62443-4-2

Traffic

NEMA TS2

Railway

EN 50121-4

Power Substation

IEC 61850-3/IEEE 1613/IEC 60255-27

Vibration

IEC 60068-2-6

Shock

IEC 60068-2-27

Free Fall

FED STD 101C Method 5007.1

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

IEEE 1588v2 PTP

Forward/Filtering Rate

14,880pps for 10Mbps

148,810pps for 100Mbps

1,488,100pps for 1000Mbps

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

Physical

Casing Material

Aluminum

IP Rating

IP40

Dimensions

72 x 140 x 170mm (W x D x H)
2.8" x 5.5" x 6.7"

Weight

1.4kg (3.08lbs)

Installation Type

DIN-rail mounting

Environmental

Operating Temp.

-40 to 75°C (-40 to 167°F)
(-40°C to 85°C for IEC 60068-2-2 Environmental 16 hours)

Storage Temp.

-45 to 85°C (-49 to 185°F)

Relative Humidity

5% to 95% (non-condensing)

MTBF

2,046,665 hours

Warranty

Length

Limited Lifetime

Details

www.etherwan.com/support/warranty-policy

What's Included

Device

Ethernet Switch

Cables

1 Console Cable

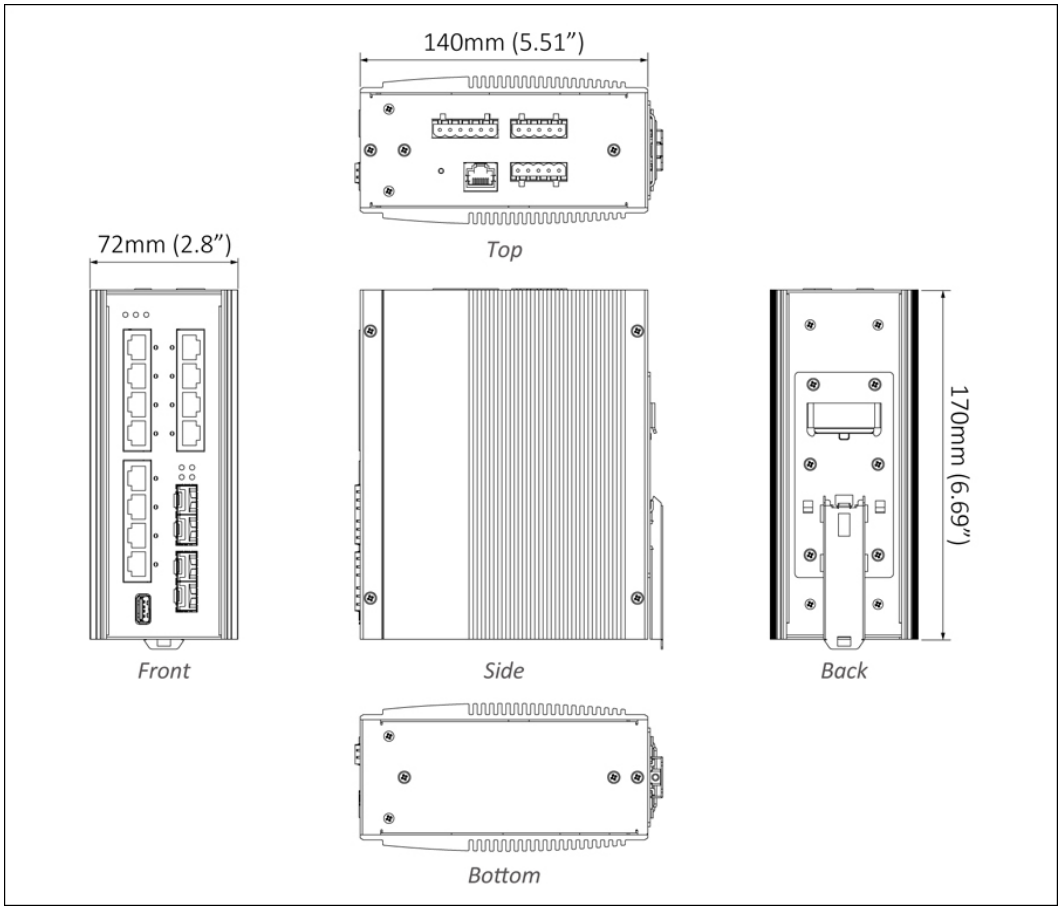
Installation

Mounting brackets, screws

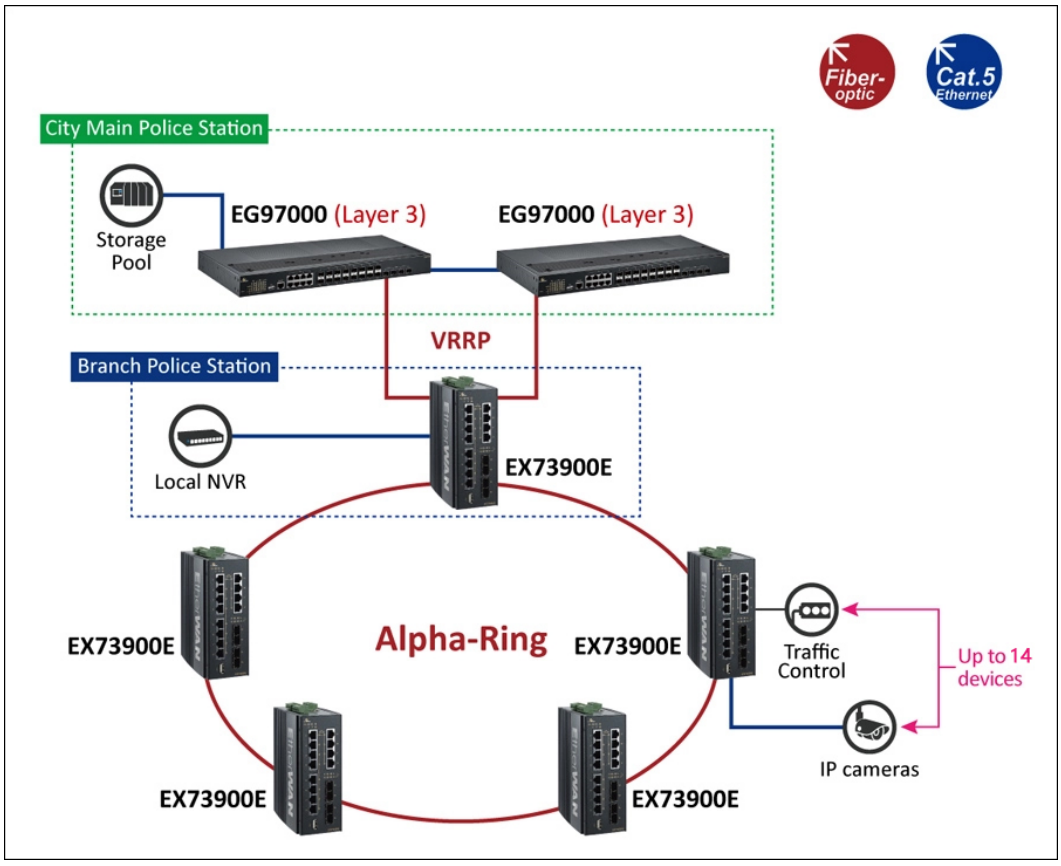
Documentation

Quick install guide

寸法図

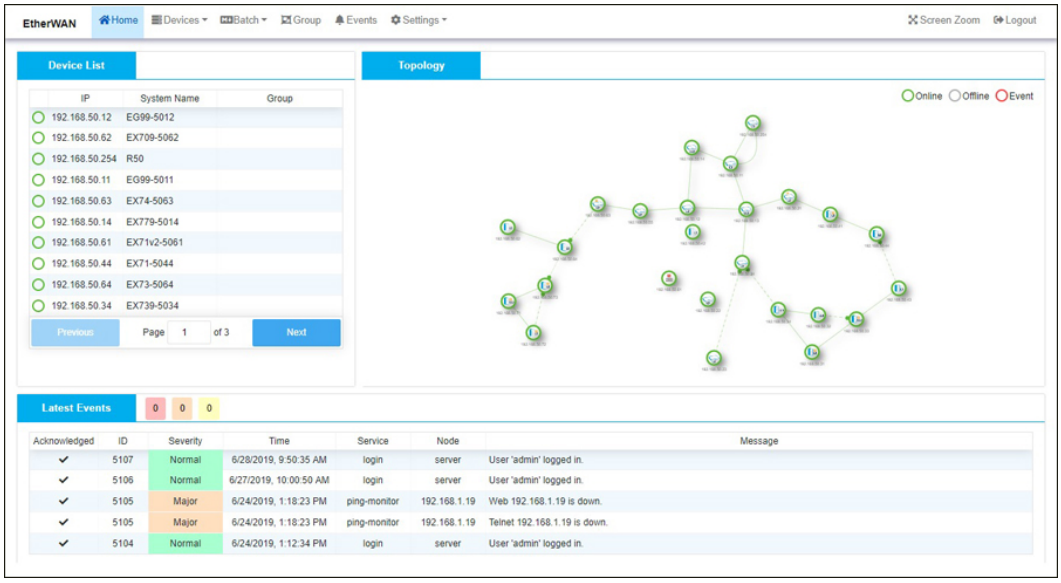


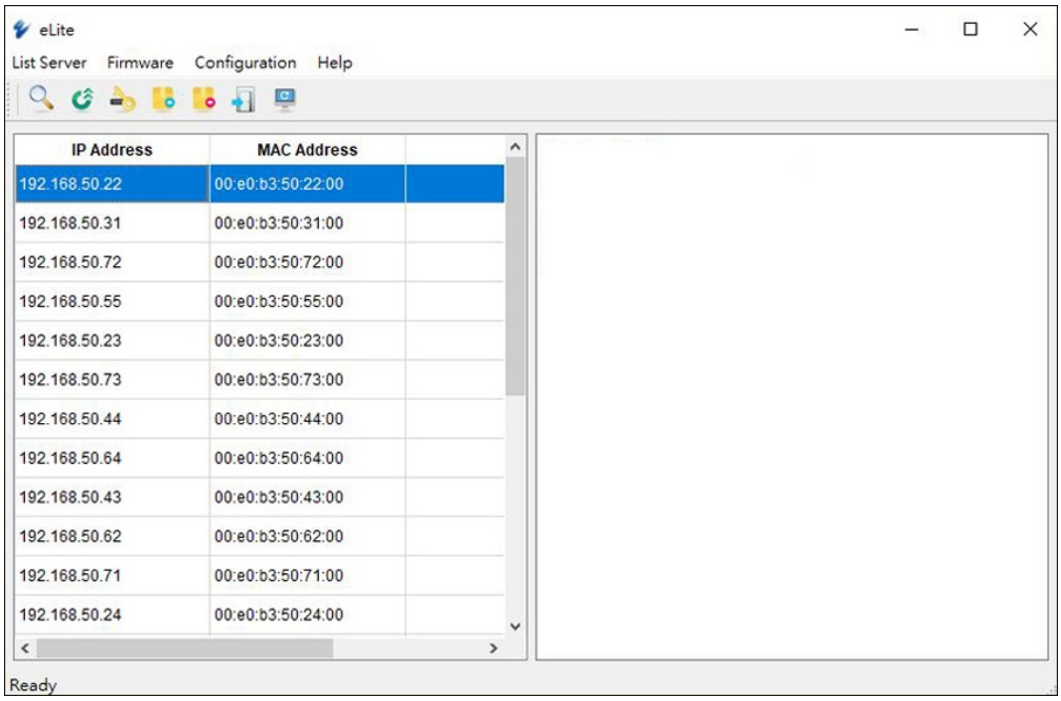
応用例


Fiber-optic
Cat.5 Ethernet
City Main Police Station
Storage Pool
EG97000 (Layer 3)
EG97000 (Layer 3)
VRRP
Branch Police Station
Local NVR
EX73900E
EX73900E
Alpha-Ring
EX73900E
Traffic Control
Up to 14 devices
IP cameras
EX73900E
EX73900E

ソフトウェア

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





製品型番

Model

			
	EX73934E-0VB	**EX73924E-0VB**	**EX73922E-0VB**
10/100/1000BASE TX	12	8	8
100/1000 BASE SFP	4	4	2
	お問い合わせ	お問い合わせ	お問い合わせ

Accessories

Hardened 100BASE SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Hardened Gigabit SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
DIN-Rail Power Supplies	www.etherwan.com/products/din-rail-power-supply (*)
***Recommended Power Supply**	EX41-145046 Power Supply 45W 12VDC with Open Wire

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