

EX71000 系列

強固級網管型 8埠10/100BASE +2埠Gigabit 乙太網路交換器(SFP選擇組合)



產品亮點

+ 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

產品介紹

EX71000強固級乙太網路交換器，配備8個10/100base連接埠及2個Gigabit光纖埠，可彈性搭配多種介面組合：SX/LX/BX/WDM及SFP插槽。支援標準備援通訊協定STP/RSTP/MSTP，透過益網獨家技術Alpha-Ring環狀網路備援機制，可在網路發生斷線時迅速啟動備援機制，於15毫秒內快速恢復連線通訊。

EX71000系列擁有完整的管理功能，支援IPv4/IPv6 協定, port security, IGMP snooping, VLANs, GARP 協定, 和LACP；可透過網頁瀏覽、Telnet、SNMP、RMON、TFTP和 RS-232 console 管理介面。工業級設計，可在-40 到 75°C 寬溫環境下穩定運作，是嚴苛關鍵網路應用架構的最佳選擇。

EtherWAN — "When Connectivity is Crucial."

產品特色

+ Interface

CLI, Telnet, Web GUI
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 and TACACS+
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

產品規格

+ Interface

Ethernet

4, 6 or 8 x 10/100BASE-T(X)

0 or 4 x 100BASE-FX

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, Alarm

Per Port: Link/Activity, Speed

+ 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

7.5W Max. 0.31A@24VDC

Protection
Reverse Polarity Protection

+ Physical

Casing Material
Aluminum

IP Rating
IP30

Dimensions
60 x 125 x 145mm (W x D x H)
2.36" x 4.92" x 5.7"

Weight
1.05kg

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 55032
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)
EN 61000-4-6 (Induced RFI)
EN 61000-4-8 (Magnetic Field)

Safety
UL 61010
ISA 12.12.01

Vibration
IEC 60068-2-6 Fc

Shock
IEC 60068-2-27 Ea

Free Fall
FED STD 101C Method 5007.1

Industrial Compliance
NEMA TS2
EN 50121-4

+ Warranty

Length
Limited Lifetime

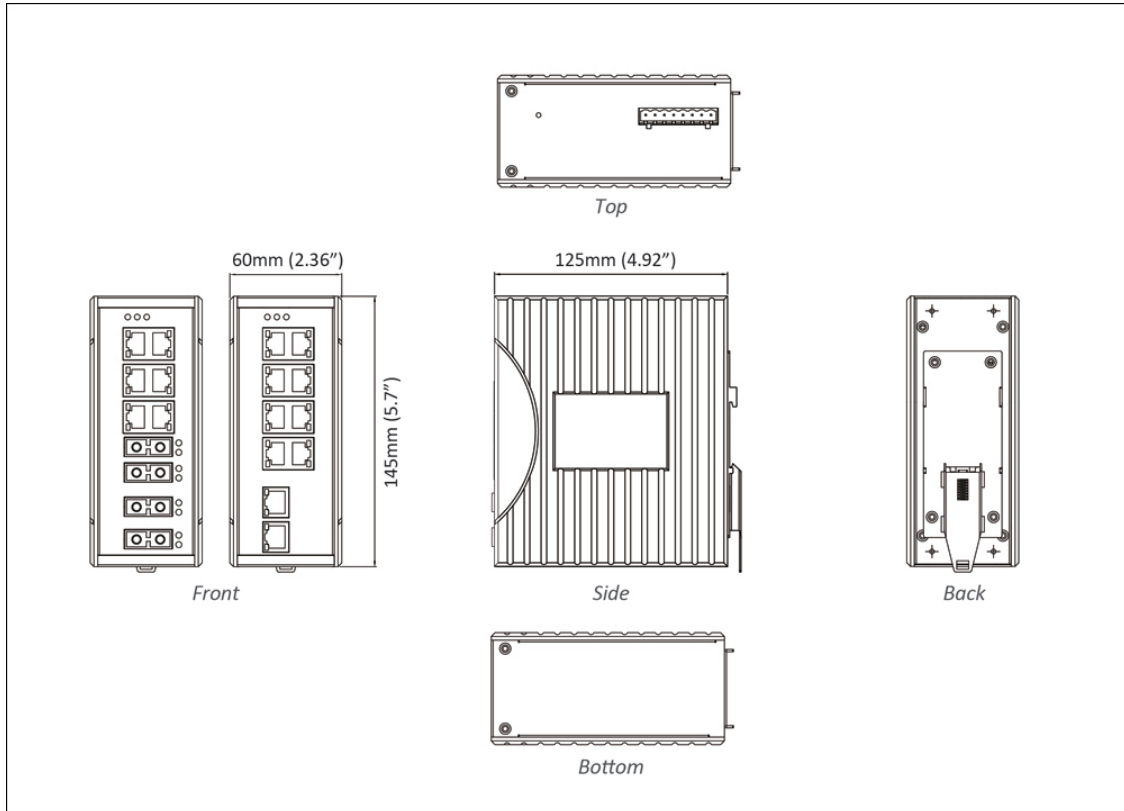
Details
www.etherwan.com/support/warranty-policy

+ What's Included

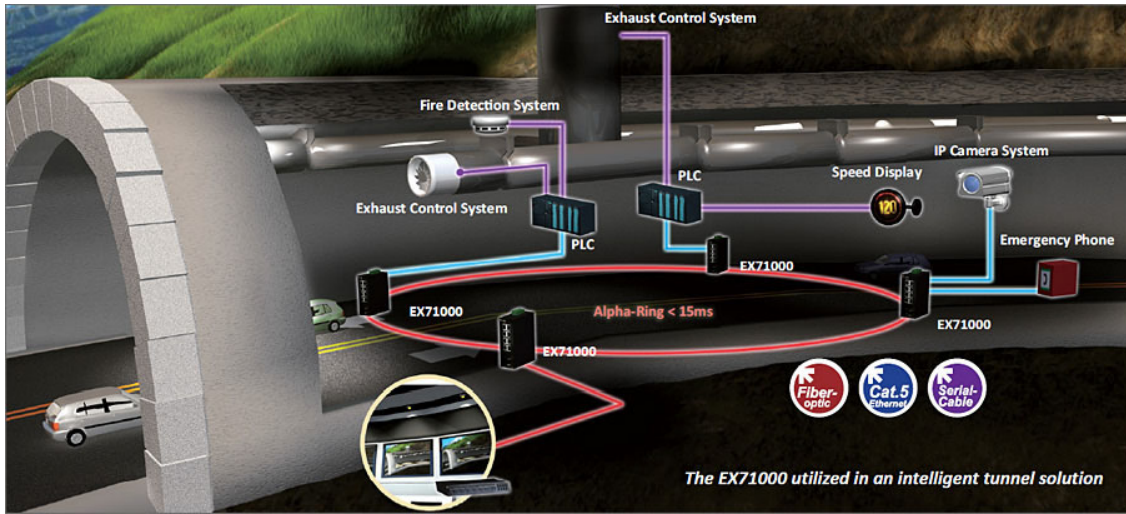
Device
Ethernet Switch

Cables
1 Console Cable
Documentation
Quick Install Guide

產品尺寸圖

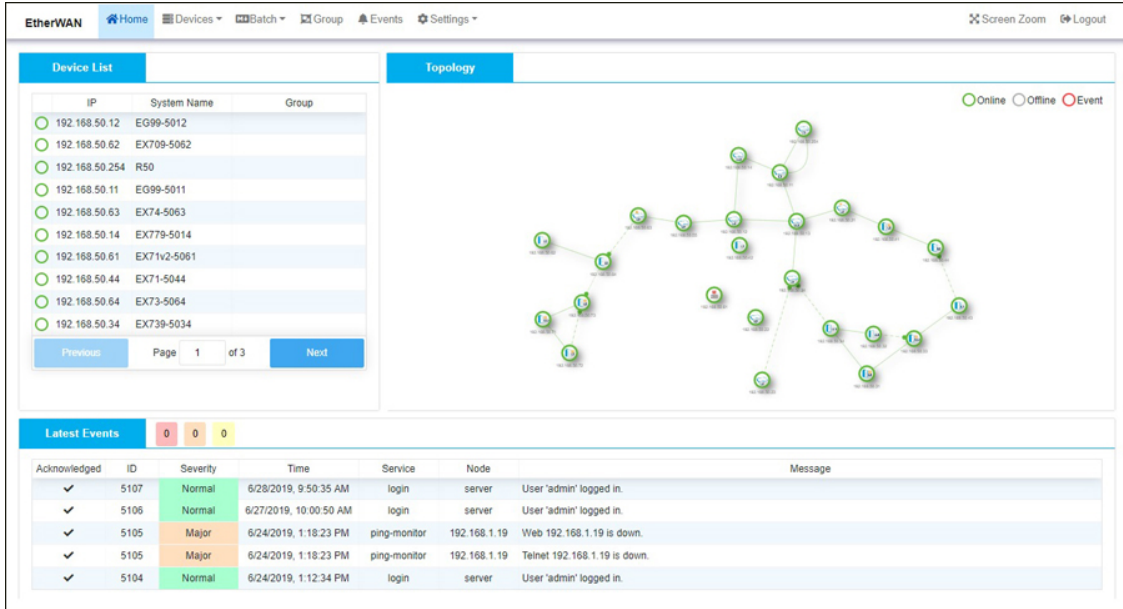


產品應用圖



管理軟體

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



The screenshot shows the EtherWAN management interface. It features a navigation bar at the top with options like Home, Devices, Batch, Group, Events, and Settings. The main content area is divided into two sections: 'Device List' and 'Topology'.

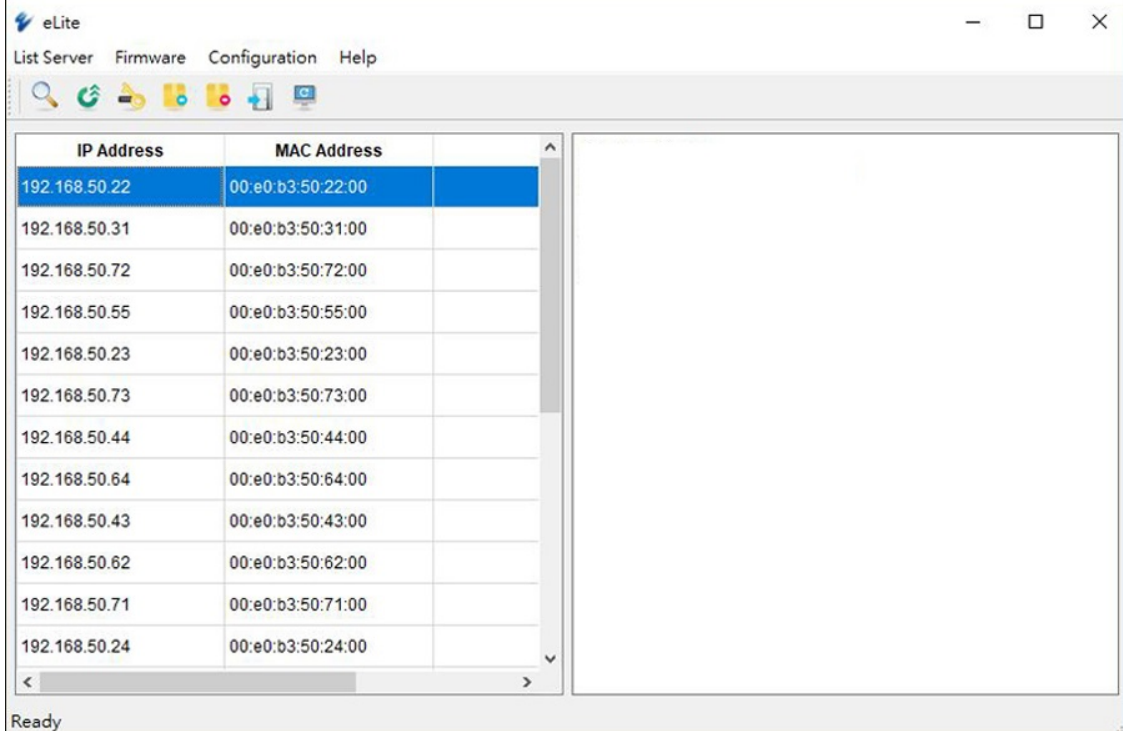
Device List: A table listing network devices with columns for IP, System Name, and Group. The devices are all marked as online with green circles.

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	

Topology: A network diagram showing the interconnections between the devices listed in the table. A legend indicates Online (green circle), Offline (grey circle), and Event (red circle).

Latest Events: A table showing recent system events.

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 network discovery tool interface. It has a menu bar with 'List Server', 'Firmware', 'Configuration', and 'Help'. Below the menu is a toolbar with various icons. The main area displays a table of discovered devices.

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 indicates 'Ready'.

訂購型號

+ Model

EX71802-0YB	8-port 10/100BASE-TX + 2-port Gigabit
EX71620-X0B	6-port 10/100BASE-TX + 2-port 100BASE-FX
EX71622-XYB	6-port 10/100BASE-TX + 2-port 100BASE-FX +2-port Gigabit
EX71440-X0B	4-port 10/100BASE-TX + 4-port 100BASE-FX

* DIN-Rail mounting kit included.

+ 100FX Fiber Options (X)

1	Multi Mode (SC) - 2Km
2	Multi Mode (ST) - 2Km
A	Single Mode (SC) - 20Km
B	Single Mode (SC) - 40Km
V	100BASE SFP (DDM)

* More 100FX Fiber options also available upon request.

+ Gigabit Port Options (Y)

1	10/100/1000BASE-TX
3	1000BASE-SX (SC) - 550m
4	1000BASE-SX (SC) - 2Km
5	1000BASE-SX (ST) - 550m
A	1000BASE-LX (SC) - 10Km
B	1000BASE-LX (SC) - 20Km
R	1000BASE-BX (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
S	1000BASE-BX (SC) WDM-TX: 1550nm/RX: 1310nm-20Km
V	100/1000BASE SFP (DDM)

* More Gigabit options also available upon request.

+ 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

