

EX77964

Lite L3 広範囲動作温度対応産業用/管理型 24ポート ギガビット+ 4ポート1G/10G SFP+ イーサネットスイッチ



概要

EtherWANのEX77964シリーズは広範囲動作温度対応 管理型 全ギガビット最大28ポート運用可能なイーサネットスイッチです。スタティックルーティング、ルーティングコンフォメーションプロトコル (RIP) V1/V2とVirtual Router Redundancy Protocol (仮想ルータ冗長プロトコルVRRP) などのレイア3ルーティングプロトコルを搭載した堅牢な管理機能と産業用仕様にあわせ、柔軟に安全的にハイパフォーマンスとコスト的なパッケージをご提供します。

EX77964は28ポートギガビット、又は24ポートギガビット銅ポート+10G SFP+ 4ポートを装備し、コアネットワークの一員として、使用されており、深さ254mmの特別な筐体設計により、狭いキャビネットの装置に最適です。

ポートセキュリティやIGMP snooping、ポートベースVLAN、GARPプロトコル、リンクアグリゲーションとACLなどの様々な管理機能をブラウザ経由で設定可能で、Telnet、SSH、SNMP、RMON、TFTP、RS-232コンソール接続などにも対応します。EX77964は産業用-40~75°Cの広温度範囲の環境に安定したハイパフォーマンスをご提供します。

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

+ Lite Layer 3 Functionality

Static routing, RIP v1/v2, and OSPF support
Redundancy with VRRP
Reduces amount of broadcast traffic

+ High Bandwidth and Versatility

Up to 24 10/100/1000BASE-T(X) ports
Up to 8 dual-rate 100/1000BASE SFP ports
4 1G/10G SFP+ uplink ports

+ Support

Complimentary Technical Support
Free Firmware Upgrades
Limited Lifetime Warranty

機能

+ Interface

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

+ Management

Firmware upgrade
Configuration backup via TFTP
DHCP Server/Client
RMON (Remote Monitoring)
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

ACL (Access Control List)

+ 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)

仕様

+ Interface

Ethernet

16 or 24 x 10/100/1000BASE-T(X)

8 x 100/1000BASE SFP

4 x 10G SFP+

Console

+ Layer 2 Features

Auto-negotiation for port speed and duplex mode

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) and Alpha-Chain

VLANs

IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)

GVRP

GMRP

Link Aggregation

Static Trunk (4 groups, support MAC base)

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

1 x RJ45 RS-232

Config Backup

1 x USB (Type A Connector)

Alarm Contact

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

LED Indicators

Per Unit: Power

Per Port: Link/Activity (Green)

+ 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

14,881,000pps for 10Gbps

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

12-24VDC Redundant (Terminal block)

Power Consumption

31.08W

+ Physical

Casing Material

Metal

IP Rating

IP30

Dimensions

430 x 254 x 44.2mm (W x D x H)

16.9" x 10" x 1.74"

Weight

3.29Kg (7.25lbs)

Installation Type

Rack mounting

+ Environmental

Operating Temp.

-40 to 75°C (-40 to 167°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

VCCI 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)

EN 61000-4-6 (Induced RFI)

EN 61000-4-8 (Magnetic Field)

Safety

UL 62368

Vibration

IEC 60068-2-6 Fc

Shock

IEC 60068-2-27 Ea

Free Fall

FED STD 101C Method 5007.1

Industrial Compliance

NEMA TS2

+ Warranty

Length

Limited Lifetime

Details

www.etherwan.com/support/warranty-policy

+ What's Included

Device

Ethernet Switch

Cables

1 Console Cable

Installation

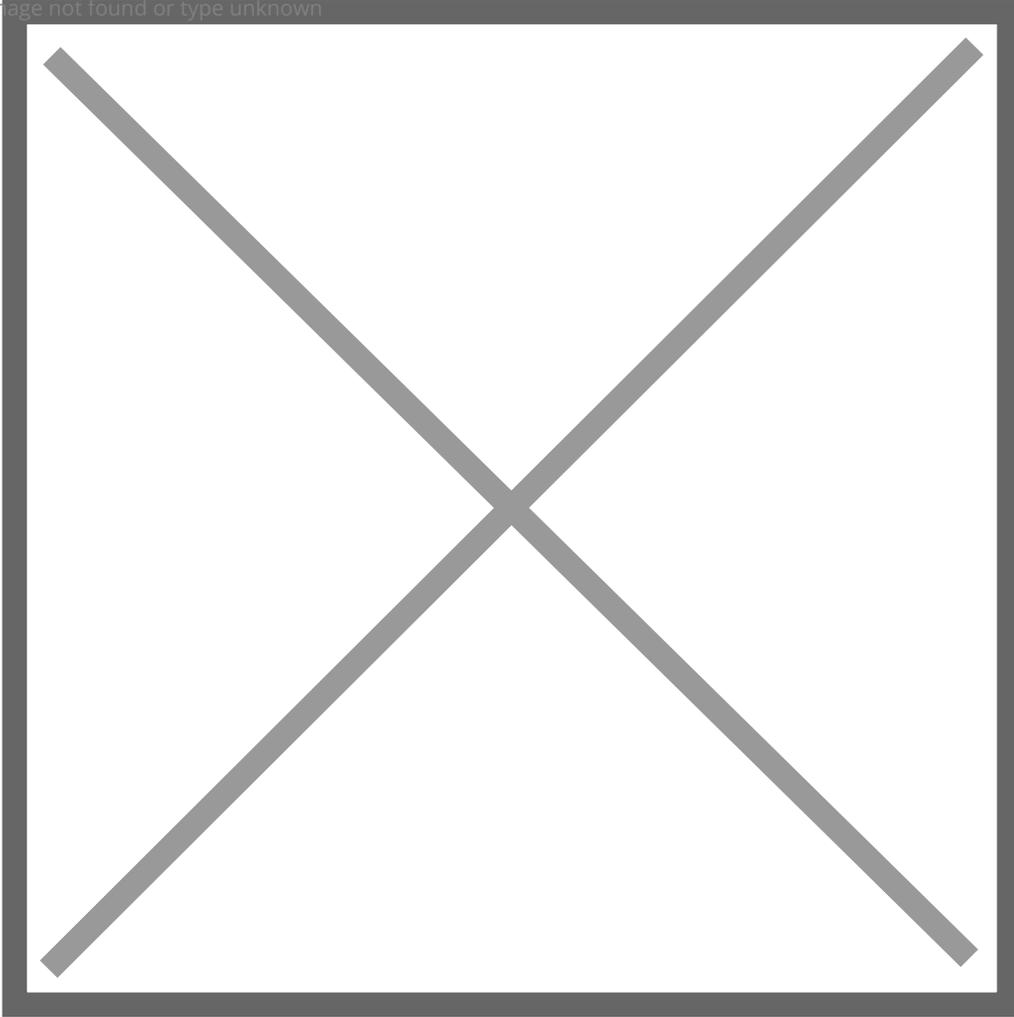
Mounting brackets

Documentation

Quick Install Guide

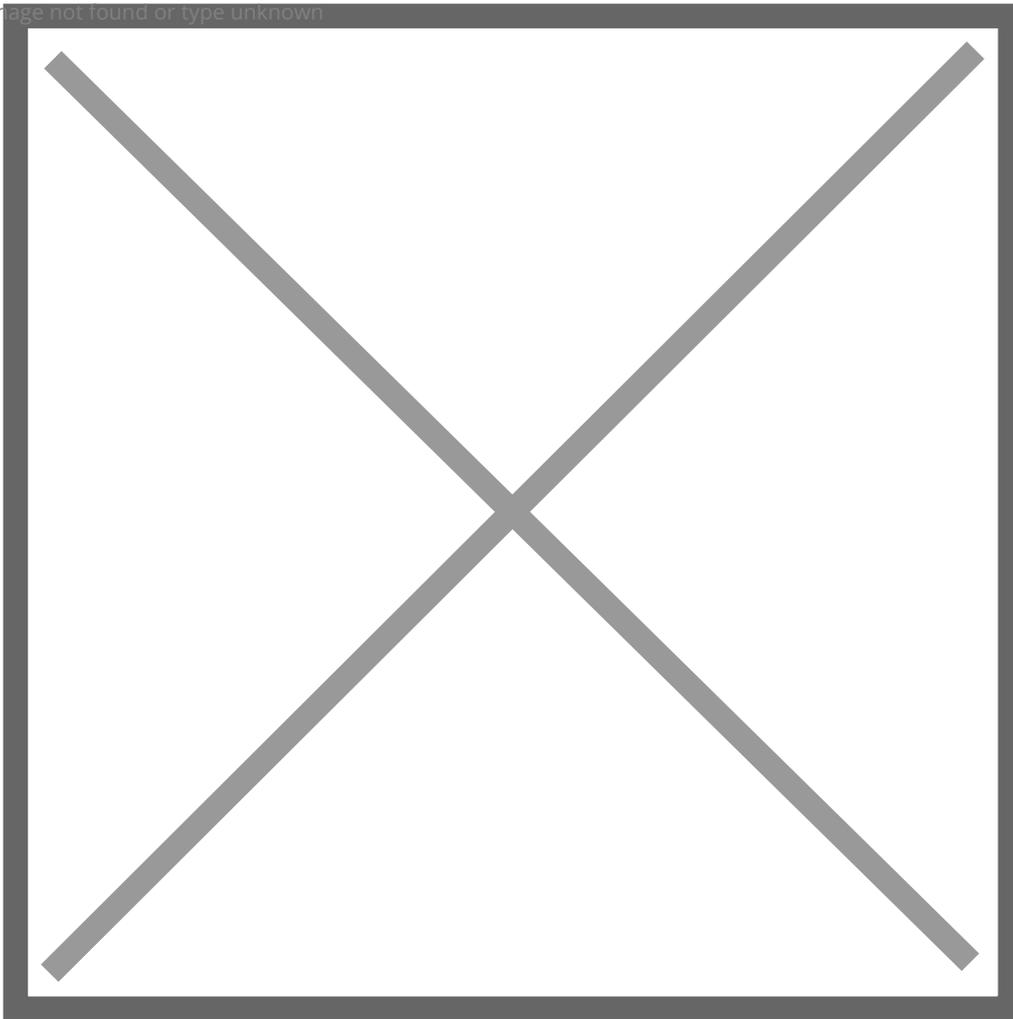
寸法図

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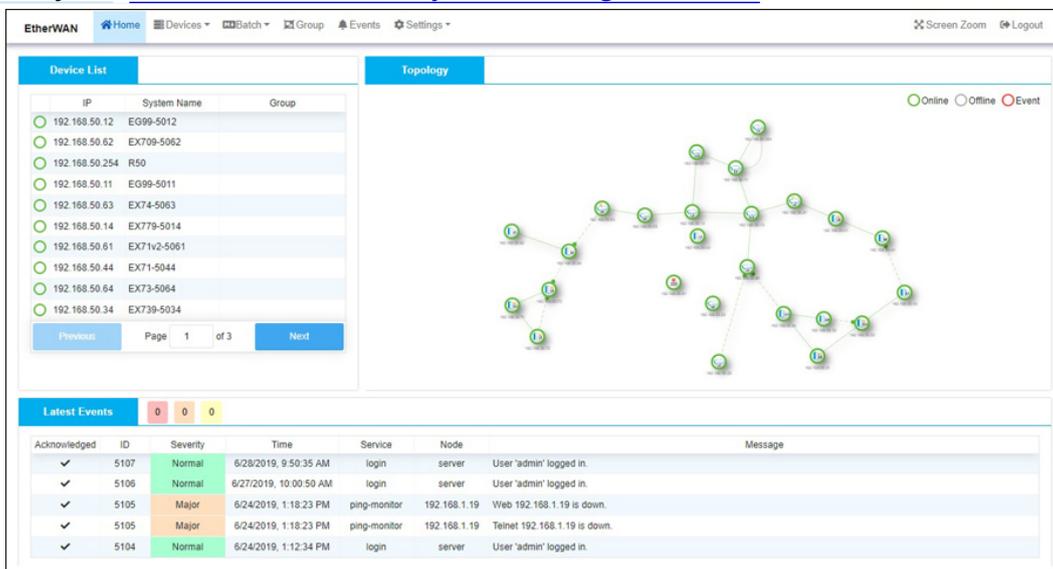
応用例

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ソフトウェア

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

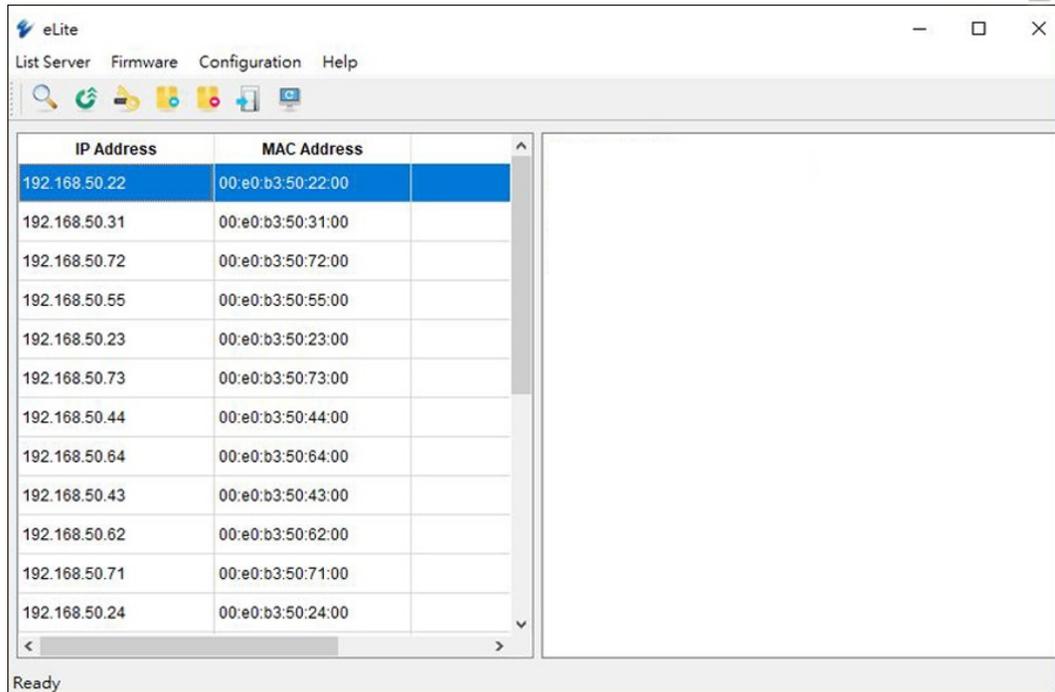


The screenshot displays the EtherWAN management interface. At the top, there is a navigation bar with 'EtherWAN', 'Home', 'Devices', 'Batch', 'Group', 'Events', and 'Settings'. On the right, there are options for 'Screen Zoom' and 'Logout'.

The main content area is divided into three sections:

- Device List:** A table listing network devices with columns for IP, System Name, and Group. The table contains 10 entries, all with green status indicators. Navigation buttons for 'Previous', 'Page 1 of 3', and 'Next' are at the bottom.
- Topology:** A network diagram showing interconnected nodes. A legend indicates Online (green circle), Offline (white circle), and Event (red circle).
- Latest Events:** A table showing recent system events 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.



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

EX77964-8VB 16-port 10/100/1000BASE-TX + 8-port 100/1000BASE SFP Combo + 4-port 1G/10G SFP+ (12-24VDC)

+ Accessories

Hardened 100BASE SFP Modules	www.etherwan.com/products/sfp-fiber-transceiver
Hardened Gigabit and 10-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	HDR-60-24 60W 24VDC DIN-Rail Power Supply
EB-232	Configuration Backup and Restoration Tool

