

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、ルーティングイ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 カッパー 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

+ 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

+ 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 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+

+ 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

Console

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

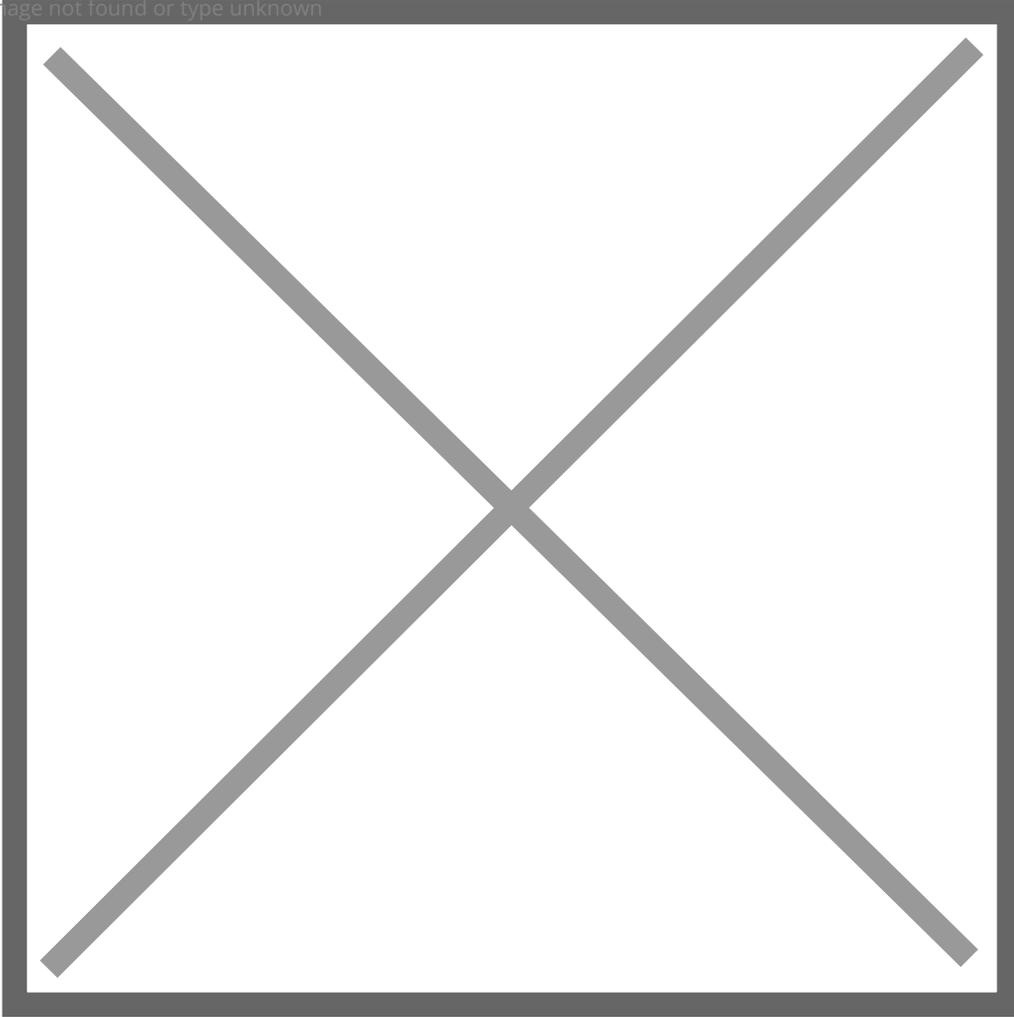
Mounting brackets

Documentation

Quick Install Guide

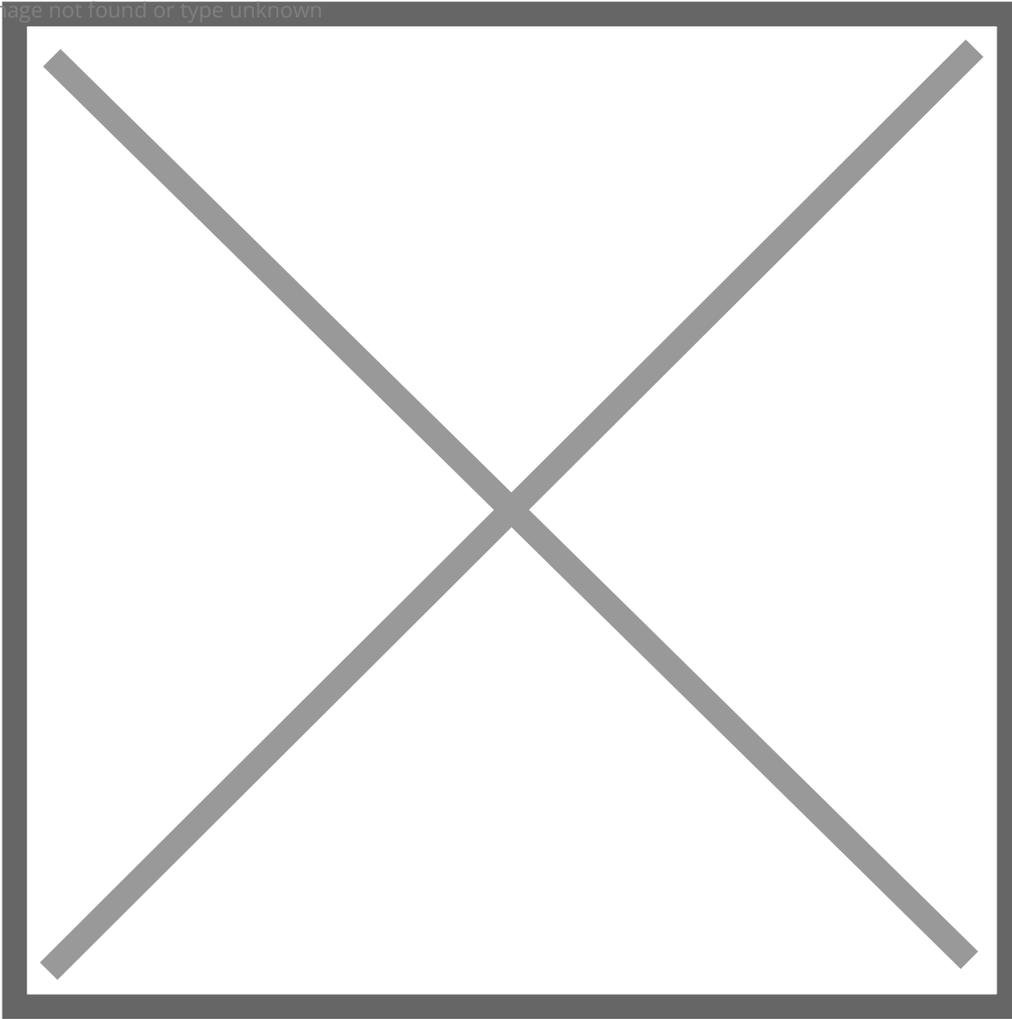
寸法図

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応用例

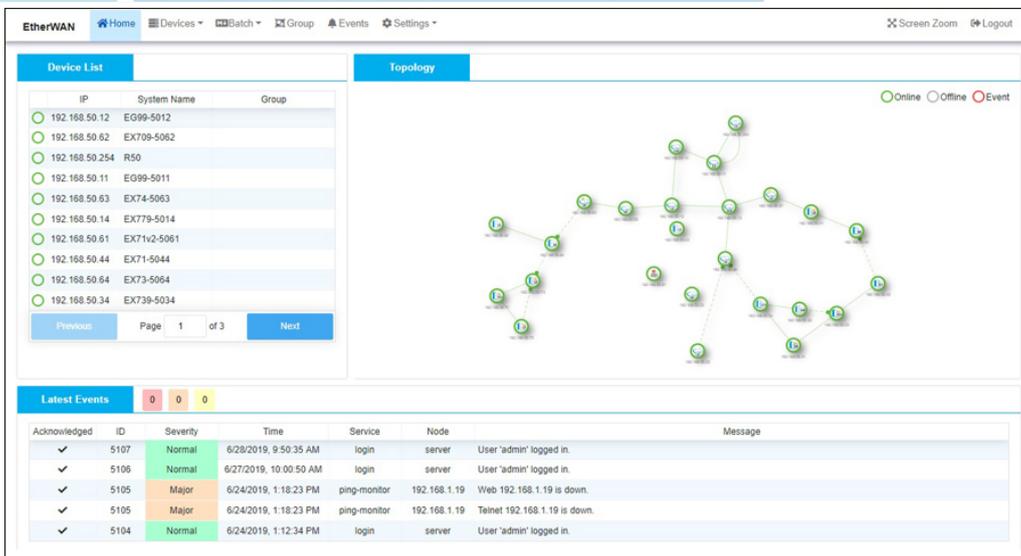
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ソフトウェア

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

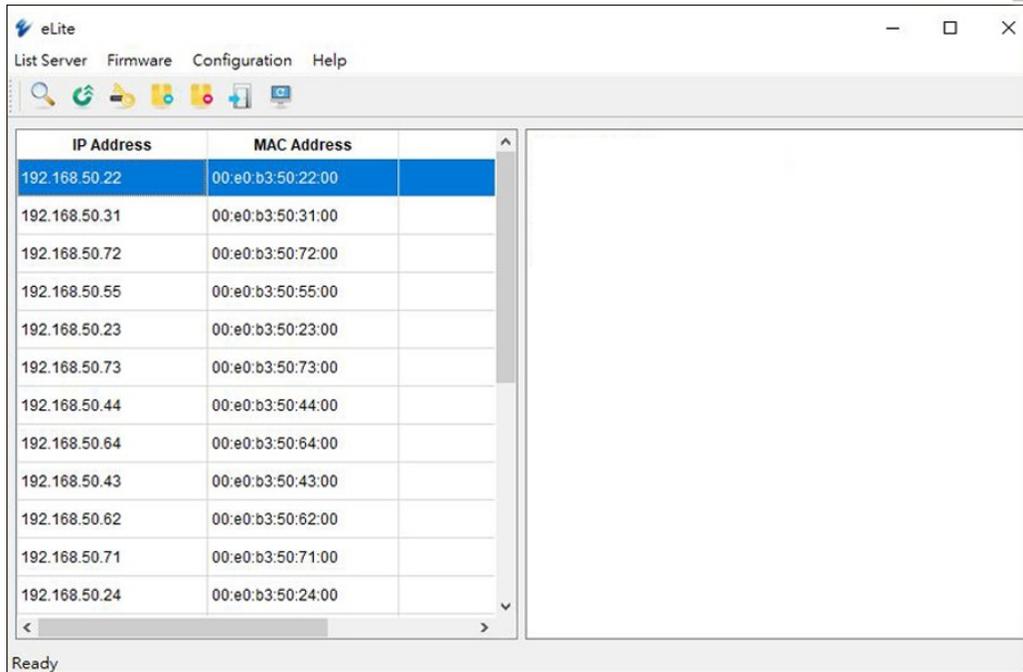
Network Discovery [eLite™ Network Discovery and IP Configuration Tool](#)



The screenshot displays the EtherWAN web interface. At the top, there is a navigation bar with 'Home', 'Devices', 'Batch', 'Group', 'Events', and 'Settings'. The main content area is divided into three sections:

- Device List:** A table listing network devices with columns for IP, System Name, and Group. All devices are marked as online (green circles).
- Topology:** A network diagram showing interconnected nodes and links. A legend indicates Online (green circle), Offline (grey 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 |

