

## EX83304 系列

IEC 61850-3/IEEE 1613 Lite L3 12埠10/100BASE-TX +4埠Gigabit 強固級網管型 乙太網路交換器



## 產品亮點

### Versatile Connectivity

- » Provides flexibility 8 or 12 10/100BASE-T(X) ports and 2 or 4 Gigabit SFP ports

### Intelligent Management

- » Optimize network performance with QoS, VLAN, ACL and RADIUS support
- » Unique Dying Gasp feature provides immediate notification of switch power off with SNMP

### Lite Layer 3 Routing Features

- » Supports OSPF, RIP v1/v2, static route
- » Maximum number of routes in hardware: 64 entries
- » Supports Virtual Router Redundancy Protocol (VRRP)

## 產品介紹

EtherWAN's EX83304 Series is a hardened DIN-Rail mounted 16-port managed switching platform, combining high performance switching backbone with robust and secure management features required for mission-critical and harsh environments where sustained connectivity is crucial.

The EX83304 Series is equipped with maximum 12 x 10/100BASE-TX, in combination with 4 Gigabit SFP ports. The EX83304 Series is equipped with EtherWAN's Alpha-Ring self-healing technology, providing outstanding fault recovery time, making it ideal for applications intolerant to interruption. Users are able to access management features such as port security, IGMP snooping, port-based VLAN, GARP protocols, link aggregation and ACL, via web browser, telnet, SSH, SNMP, RMON, TFTP, and RS-232 console interfaces.

With the hardened specifications, the EX83304 Series is designed to operate at -40 to 75°C in harsh environments, and is IEC 61850 & IEEE 1613 certified, capable of operating under high EMI environments, making it an ideal choice for harsh applications.

EtherWAN — **"When Connectivity is Crucial."**

## 產品特色

### 管理

#### » 介面

- CLI, Telnet and Web Browser
  - SNMP v1/v2c/v3
  - » Firmware and configuration upgrade and backup via TFTP
  - » Supports DHCP Server/Client
  - » RMON (Remote Monitoring): group 1, 2, 3, 9
  - » Port mirroring: TX/RX and both
  - » NTP (Network Time Protocol) time synchronization
  - » IEEE 802.1ab LLDP (Link Layer Discovery Protocol)
  - » IPv4/IPv6
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### 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)
  - » ACL
  - » Multi-level user account/password against unauthorized configuration
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### Quality of Service (QoS)

- » Priority Queues: 4 queues per port
  - » Traffic classification based on IEEE 802.1p CoS, DSCP, WRR (Weighted Round Robin) and strict mode
  - » Rate Limiting (Ingress/Egress)
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### 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 Protocol
    - IEEE 802.1D Spanning Tree Protocol (STP)
    - IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
    - IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
    - EtherWAN's Alpha-Ring network fault recovery
  - » VLANs
    - IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
    - GVRP (GARP VLAN Registration Protocol)
    - GMRP (GARP Multicast Registration Protocol)
  - » Link Aggregation
    - Static Trunk (4 groups, support MAC base)
    - IEEE 802.3ad Link Aggregation Control Protocol
  - » IGMP Snooping
    - IGMP Snooping v1/v2/v3
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## Layer 3 Features

- » IP Packet Routing
    - Maximum number of routes in hardware: 64 entries
    - OSPF
    - RIP v1/v2
    - Static routing
  - » Routing Redundancy
    - VRRP
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## 產品規格

### 技術

#### 標準

- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3x Full duplex and flow control
- IEEE 802.1p QoS
- IEEE 802.1Q Tag VLANs
- IEEE 802.1w RSTP
- IEEE 802.1x Port-based Network Access Control

#### Forward and Filtering Rate

- 14,880pps for 10Mbps
- 148,810pps for 100Mbps
- 1,488,100pps for 1000Mbps

#### 緩衝記憶體封包

12M bits

#### 傳輸型式

- Store-and-Forward
- Auto Negotiation
- Half-duplex back-pressure and IEEE 802.3x full-duplex flow control
- Auto MDI/MDIX

#### MAC地址表

- 16K MAC addresses
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### 電源

#### 輸入電壓

- Redundant Power Inputs:  
Terminal Block: 12-48VDC

#### 電力功耗

- 17.28W Max. 1.44A@12VDC, 0.67A@24VDC

#### Protection

- Reverse polarity protection
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## 機構

### 機殼

- Aluminum Case
- IP30

### 尺寸

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

### 重量

- 1.4Kg (3.09lbs.)

### 安裝方式

- DIN-Rail
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## 介面

### 乙太網路埠

- 10/100BASE-TX: 8 or 12 ports
- Gigabit SFP: 2/4 ports

### Console Port

- Port: One DB9 RS-232 port

### Alarm Contact

- One relay output with current 0.6A/30VDC

### LED 指示燈號

- Per Unit: Power 1, Power 2
  - Per Port: Link/Activity (Green)
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## 環境

### 工作溫度

- -40 to 75°C (-40 to 167°F)  
Tested @ -40 to 85°C (-40 to 185°F)

### 儲存溫度

- -45 to 85°C (-49 to 185°F)

## 工作濕度

- 5% to 95% (無凝結)
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## 通過認證

### ISO

- Manufactured in an ISO 9001 facility

### Safety

UL 61010

### 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 Standards)
- EN 61000-4-3 (Radiated RFI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

### Environmental Test Compliance

IEC 60068-2-6 Fc (Vibration)

IEC 60068-2-27 Ea (Shock)

FED STD 101C Method 5007.1 (Free fall w/package)

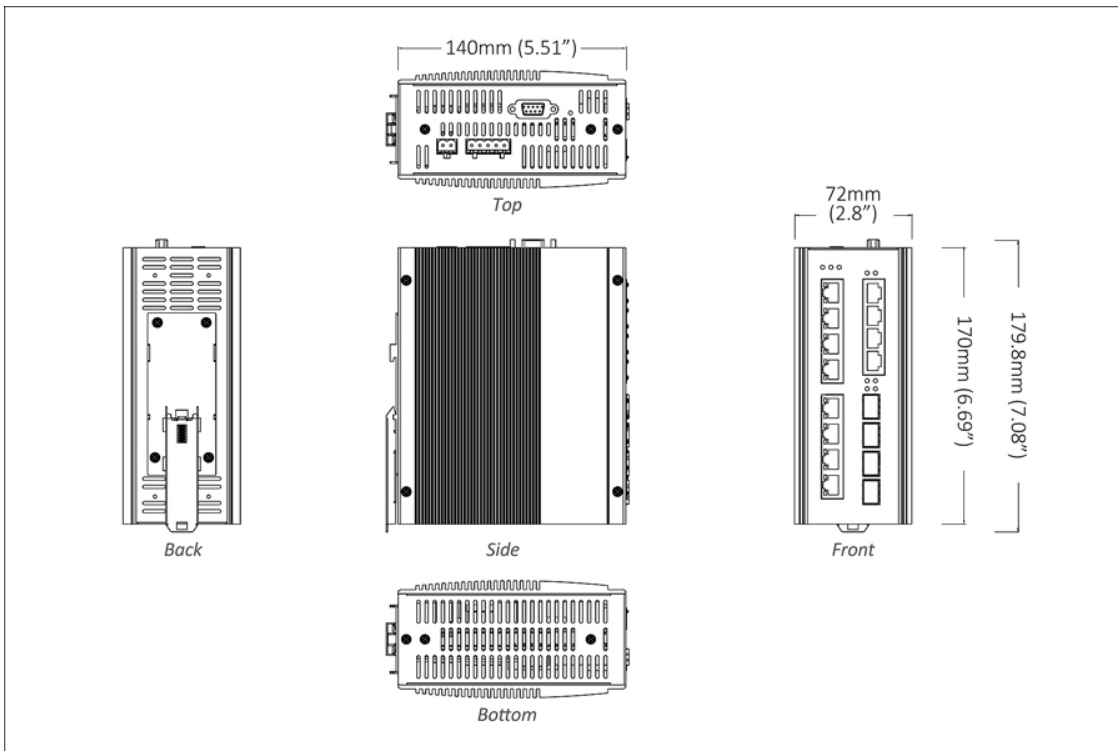
### Industrial Compliance

IEEE 61850-3/IEEE 1613

NEMA TS2

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## 產品尺寸圖





## 訂購型號

### 型號

EX83304-0VB	12-Port 10/100BASE-TX +4-port Gigabit SFP Hardened Managed Ethernet Switch
EX83204-0VB	8-Port 10/100BASE-TX +4-Port Gigabit SFP Hardened Managed Ethernet Switch
EX83202-0VB	8-Port 10/100BASE-TX +2-Port Gigabit SFP Hardened Managed Ethernet Switch

\* DIN-Rail mounting kit included.

### Optional Accessories

HDR-30-24	30W/1.5A DIN-Rail 24VDC Industrial Power Supply
HDR-60-24	60W/2.5A DIN-Rail 24VDC Industrial Power Supply
EDR-75-24	75W/3.2A DIN-Rail 24VDC Industrial Power Supply
EB-232	Configuration Backup and Restoration Tool for EX83304 switch with firmware 2.02.2 or above

