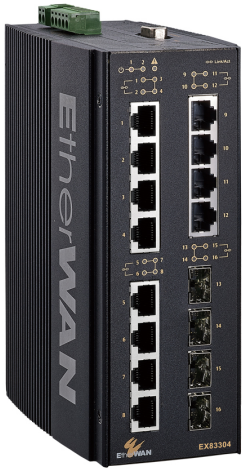
EX83304 Series

Hardened Managed 12-port 10/100BASE and 4-Port Gigabit Ethernet Switch



Overview

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.**"

Spotlight

+ 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

+ L2/L3 Routing Features

Supports OSPF, RIP v1/v2, static route

Maximum number of routes in hardware: 64 entries

Supports Virtual Router Redundancy Protocol (VRRP)

Features

Management

Interface

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

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

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)

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

Layer 3 Features

IP Packet Routing

Maximum number of routes in hardware: 64 entries

OSPF

RIP v1/v2

Static routing

Routing Redundancy

VRRP

Specifications

Technology

Standards
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

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

Interface

Ethernet Port
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 Indicators
Per Unit: Power 1, Power 2
Per Port: Link/Activity (Green)

Environment

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

Storage Temperature
-45 to 85°C (-49 to 185°F)

Ambient Relative Humidity
5% to 95% (non-condensing)

Power

Input
Redundant power inputs:Terminal Block: 12-48VDC

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

Protection
Reverse polarity protection

Mechanical

Casing
Aluminum Case
IP30

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

Weight
1.4Kg (3.09lbs.)

Installation
DIN-Rail

Regulatory Approvals

ISO
Manufactured in an ISO 9001 facility

Safety
UL 61010

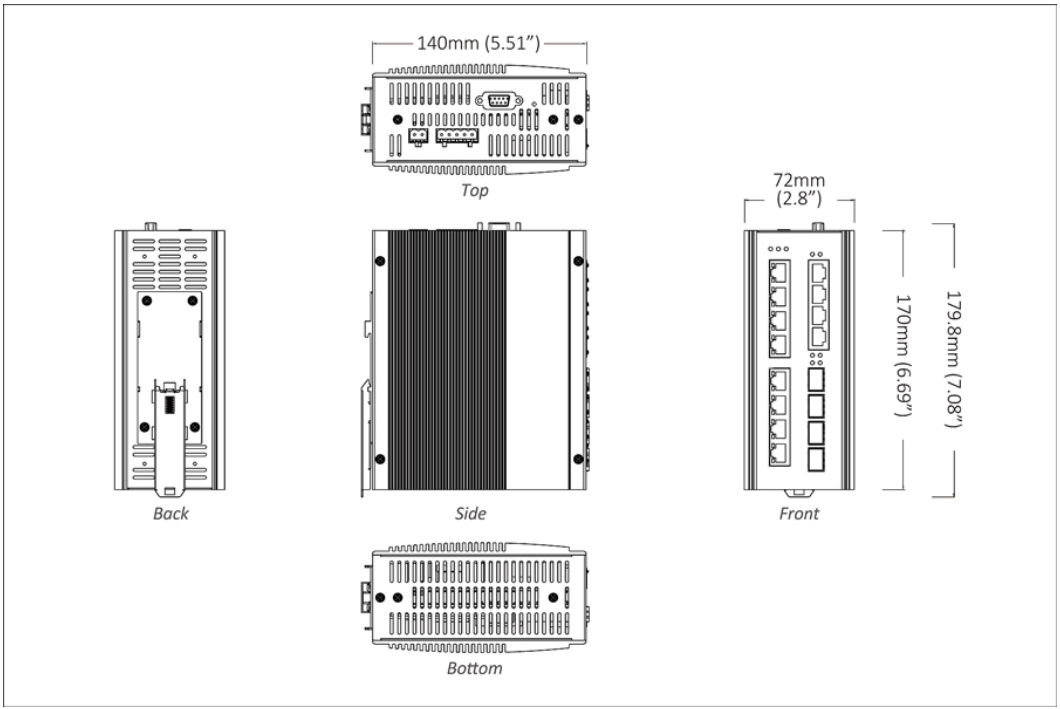
EMI
FCC Part 15B Class A
VCCI Class A
EN 61000-6-4
EN 61000-3-2
EN 61000-3-3

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

Dimensions



Ordering Info

Model

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