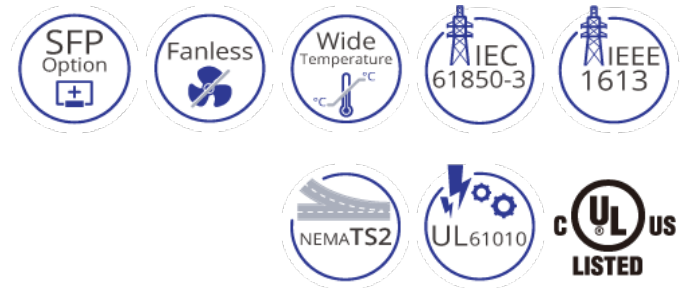


EX83304 Series

IEC 61850-3/IEEE 1613 Lite L3 Hardened Managed 12-port 10/100BASE and 4-Port Gigabit Ethernet Switch



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

+ 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)

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."**

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

+ 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

+ 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)

+ 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

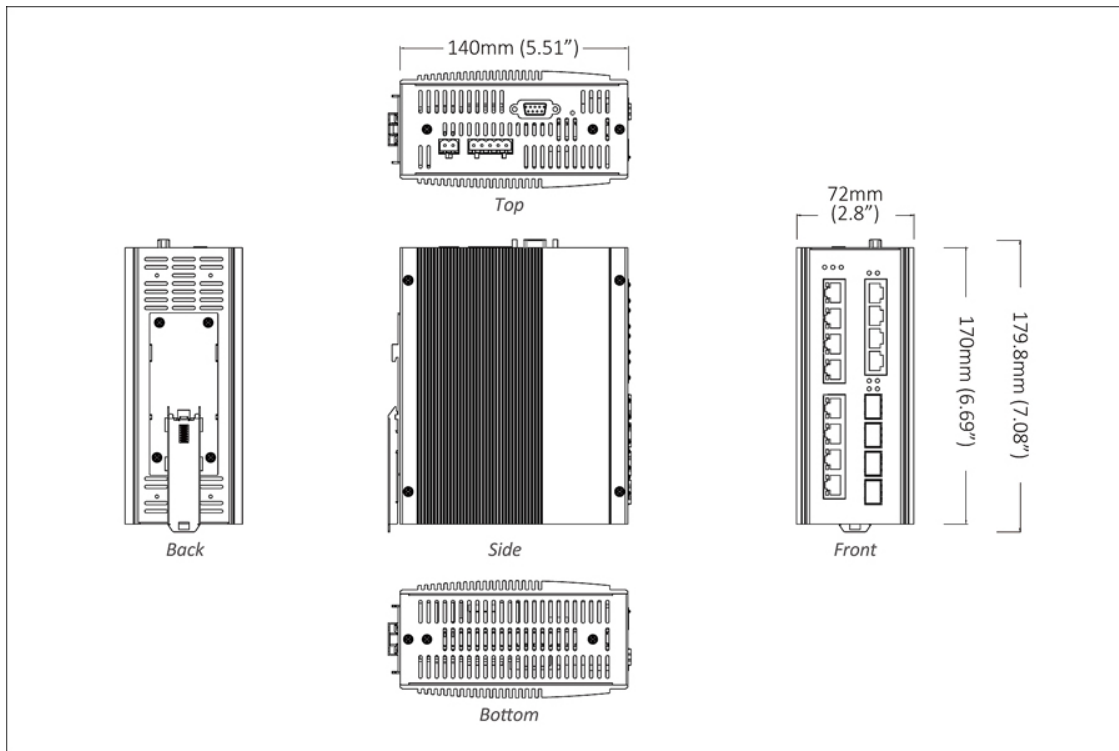
EN 61000-6-2
EN 61000-4-2 (ESD Standards)
EN 61000-4-3 (Radiated RFI Standards)
EN 61000-4-4 (Burst Standards)
EN 61000-4-5 (Surge Standards)
EN 61000-4-6 (Induced RFI Standards)
EN 61000-4-8 (Magnetic Field Standards)

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



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EtherWAN is constantly developing and improving products. Specifications are subject to change without notice and without incurring any obligation.