EX63000 Series

Industrial Managed 16-port 10/100BASE with 2-port Gigabit combo Ethernet Switch





Overview

EtherWAN's EX63000 Series provides an industrial Fully Managed 18-port 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 EX63000 Series is equipped with sixteen 10/100BASE Fast Ethernet ports, in combination with up to two Gigabit combo ports with Fixed Fiber options. Mountable on a DIN-rail, the EX63000 Series is equipped with EtherWAN's Alpha-Ring self-healing technology, providing less than 15ms fault recovery time making it ideal for applications intolerant to interruption.

With support for both IPv4 and IPv6, management features include port security, IGMP snooping, VLANs, GARP protocols, and LACP. Management is via web browser, Telnet, SNMP, RMON, TFTP, and RS-232 console interfaces.

EtherWAN - "When Connectivity is Crucial."

Spotlight

- **Versatile Connectivity**
  - Provides 16-port 10/100BASE-TX plus 2-port Gigabit-SX/LX/BX combo
- **Hardened Grade**
  - Wide operating temperature range from -10 to 60°C (-14 to 140°F) for extreme environments
  - Fanless and ruggedized housing
- **Secure Remote Access**
  - IEEE 802.1x, and RADIUS support

Software 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
- SSH for CLI and Telnet security
- SSL for web security
- Multi-level user account/password against unauthorized configuration
- System log (remote/local)

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)
- VLANs
  - Port-based VLANs
  - IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
  - GVRP (GARP VLAN Registration Protocol)
  - GMRP (GARP Multicast Registration Protocol)
- Link Aggregation
  - Static Trunk (2 groups, support MAC base)
  - IEEE 802.3ad Link Aggregation Control Protocol
- IGMP Snooping
  - IGMP Snooping v1/v2/v3

Performance

- Switching Capability: 7.2Gbps

Hardware Specifications

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 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: 12-48VDC (Terminal Block)

Power Consumption
- 8.06W 0.336A@24VDC

Protection
- Reverse polarity protection

Mechanical

Casing
- Metal Case
- IP30

Dimensions
- 59 x 125 x 145mm (W x D x H) (2.32" x 4.92" x 5.71")

Weight
- 0.84Kg

Installation
- DIN-Rail

Interface

Ethernet Port
- 10/100BASE-TX: 16 ports
- Gigabit: 0, 1 or 2 ports

Console Port
- Port: One DB9 RS-232 port

LED Indicators
- Per Unit: Power 1, Power 2
- Per Port: Link/Activity (Green: Copper; Orange: Fiber)

Alarm Contact
- One relay output with current 0.6A@30VDC

Environment

Operating Temperature
- -10 to 60°C (-14 to 140°F) Tested @ -20 to 70°C (-4 to 158°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 (pending)

EMI

FCC Part 15B Class A

EN 61000-6-4

EN 61000-3-2

EN 61000-3-3

EMS

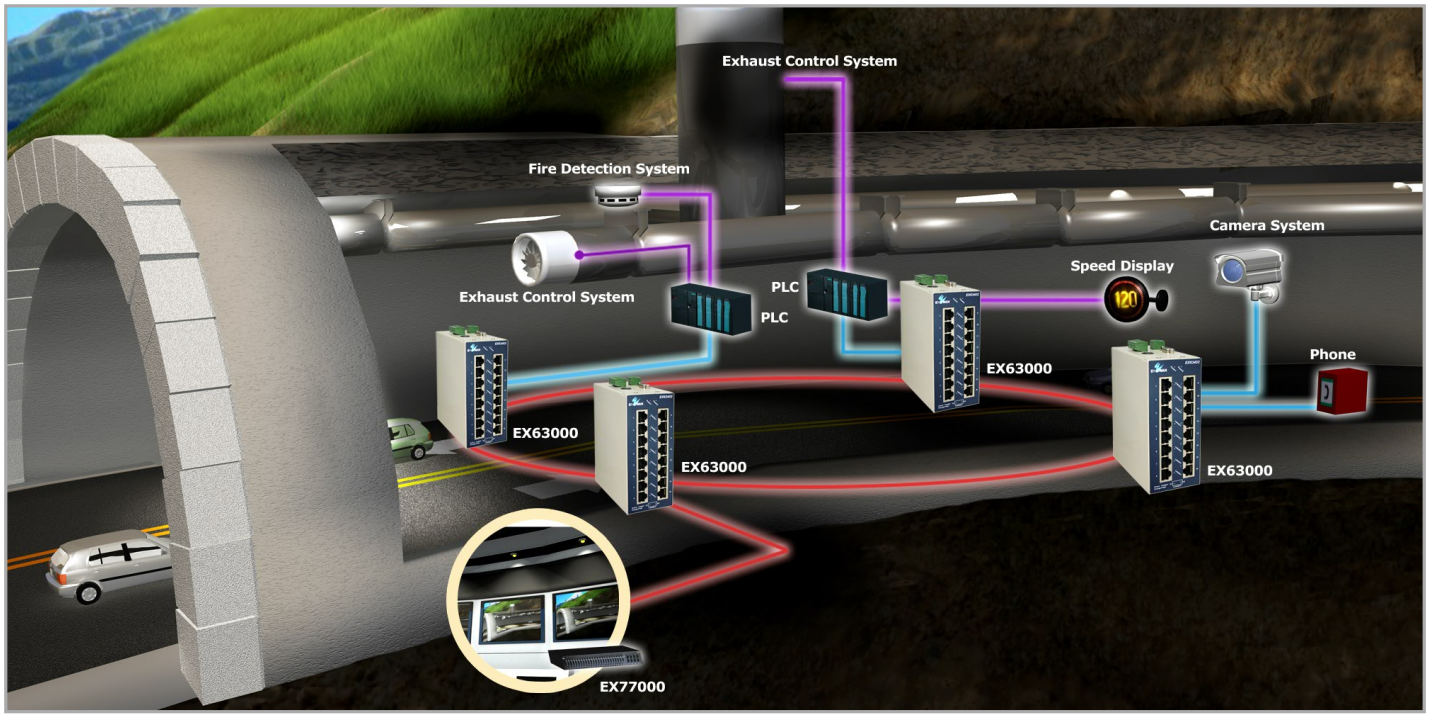
EN 61000-6-2
- EN 61000-4-2 (ESD Standards)
- EN 61000-4-3 (Radiated RFI Standards)
- EN 61000-4-4 (Burst Standards)
- EN 61000-4-5 (Surge Standards)
- EN 61000-4-6 (Induced RFI Standards)
- EN 61000-4-8 (Magnetic Field Standards)

Environmental Test Compliances

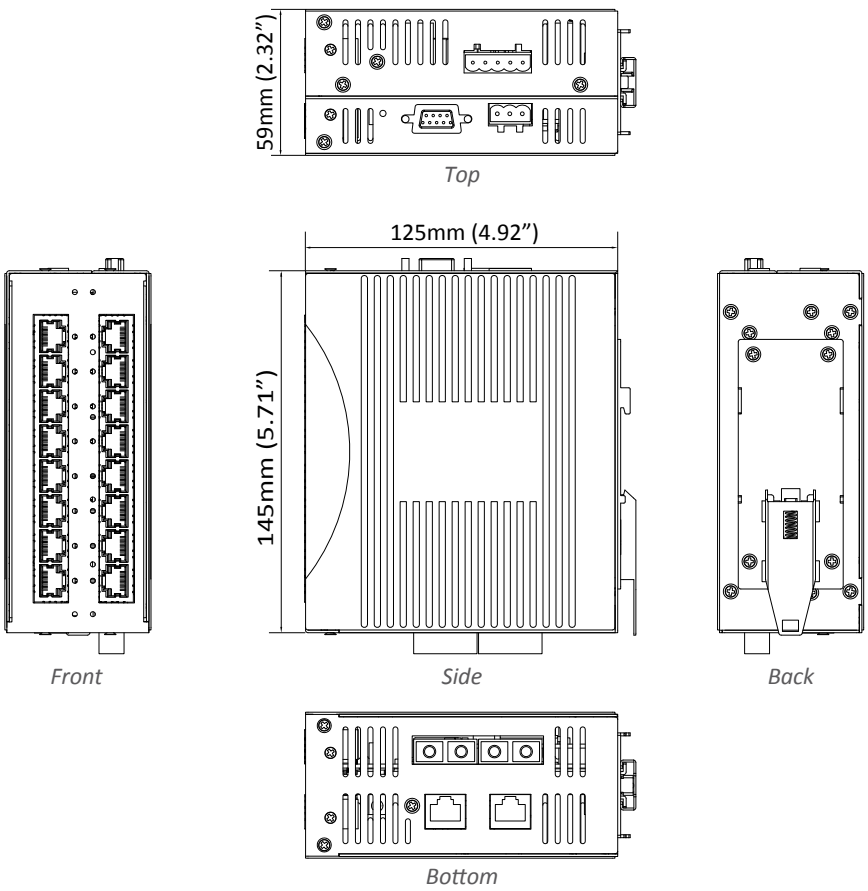
IEC 60068-2-6 Fc (Vibration Resistance)

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

Application Diagram



Dimensions



Ordering Information

Model

EX63400-00B	16-port 10/100BASE-TX Industrial Managed Ethernet Switch
EX63402-0YB	16-port 10/100BASE-TX +2-port Gigabit Industrial Managed Ethernet Switch

** DIN-Rail mounting kit included.*

Gigabit Port Options (Y)

1	10/100/1000BASE-TX (No Gigabit Fiber port supported)

Optional Accessories

KP-AA96-480	Panel Mounting Kits
HDR-30-24	30W/1.5A DIN-Rail 24VDC Industrial Power Supply
HDR-60-24	60W/2.5A DIN-Rail 24VDC Industrial Power Supply
EX41-136046-X	Power Supply 36W 12VDC with Open Wire (X) = 1: US, 2: EU, 3: UK, 4: AU, 5: JP, 6: SA
Fiber Patch Cable	www.etherwan.com/us/products/fiber-patch-cable