EX71000 Series

Hardened Managed 8-port 10/100BASE and 2-port Gigabit Ethernet Switch with SFP options

Overview

EtherWAN's EX71000 Series is a hardened DIN-rail mounted managed Ethernet switch platform. Equipped with up to 8 10/100BASE-TX and 2 fiber ports, the EX71000 Series provides flexibility, speed, and reliability to support networks for urban infrastructure, transportation, security, and other areas where connectivity is crucial.

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

Highlights

+ 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

+ Compliance

EN 50121-4 certified for railway applications
NEMA TS2 rated
UL certified for safety

+ Management/Security Features

Port control
802.1x port-based network access control and remote authentication through RADIUS
Configure and monitor with eVue™ and eLite™

+ Support

Complimentary Technical Support
Free Firmware Upgrades
Limited Lifetime Warranty

Features

Interface

CLI, Telnet, Web GUI
SNMP v1/v2c/v3

Management

Firmware upgrade
Configuration backup via TFTP
DHCP Server/Client
RMON (Remote Monitoring): group 1, 2, 3, 9
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
System log (Remote/Local)
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 and strict mode
Rate Limiting (Ingress/Egress)

Layer 2 Features

Auto-negotiation for port speed and duplex
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)

VLANs
Port-based VLANs
IEEE 802.1Q Tag VLANs (128 groups, 4096 VID)
GVRP
GMRP

Link Aggregation
Static Trunk (2 groups, support MAC base)
IEEE 802.3ad LACP

IGMP Snooping v1/v2/v3

Specifications

Interface

Ethernet
4, 6 or 8 x 10/100BASE-T(X)
0 or 4 x 100BASE-FX
0, 1 or 2 x Gigabit

Console
1 x DB9 RS-232

Alarm Contact
1 x Relay output, current capacity 0.6A/30VDC

LED Indicators
Per Unit: Power 1, Power 2, Alarm
Per Port: Link/Activity, Speed

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

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

Environmental

Operating Temp.
-40 to 75°C (-40 to 167°F)
Tested @ -40 to 85°C (-40 to 185°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
EN 55032
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 61010
ISA 12.12.01

Vibration
IEC 60068-2-6 Fc

Shock
IEC 60068-2-27 Ea

Free Fall
FED STD 101C Method 5007.1

Industrial Compliance
NEMA TS2
EN 50121-4

Power

Input
12-48VDC Redundant (Terminal block)

Power Consumption
7.5W Max. 0.31A@24VDC

Protection
Reverse Polarity Protection

Physical

Casing Material
Aluminum

IP Rating
IP30

Dimensions
60 x 125 x 145mm (W x D x H)
2.36" x 4.92" x 5.7"

Weight
1.05kg

Installation Type
DIN-rail mounting

Warranty

Length
Limited Lifetime

Details
www.etherwan.com/support/warranty-policy

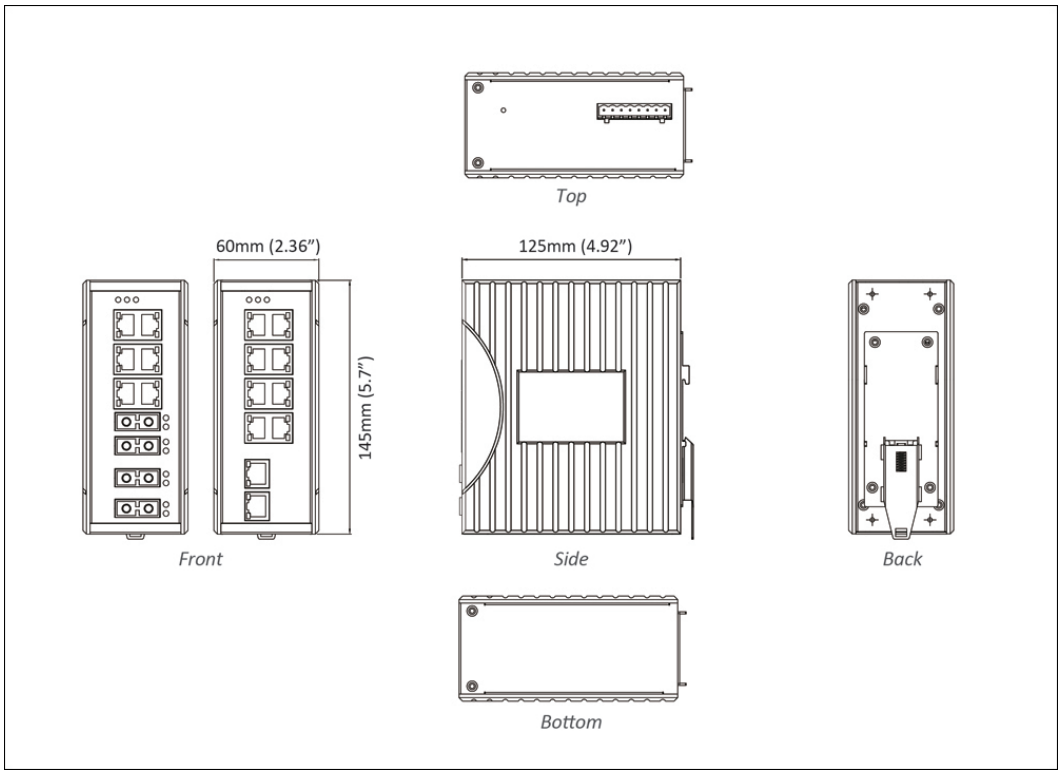
What's Included

Device
Ethernet Switch

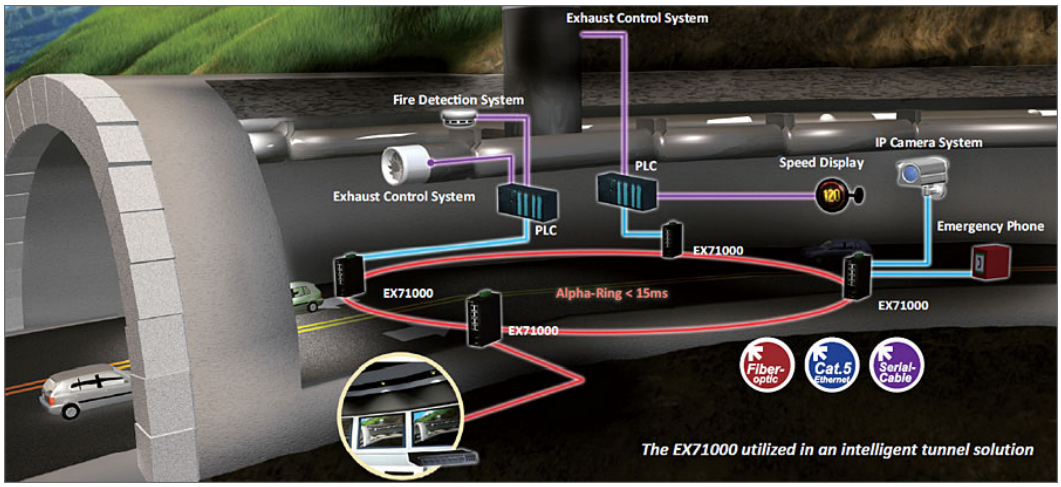
Cables
1 Console Cable

Documentation
Quick Install Guide

Dimensions

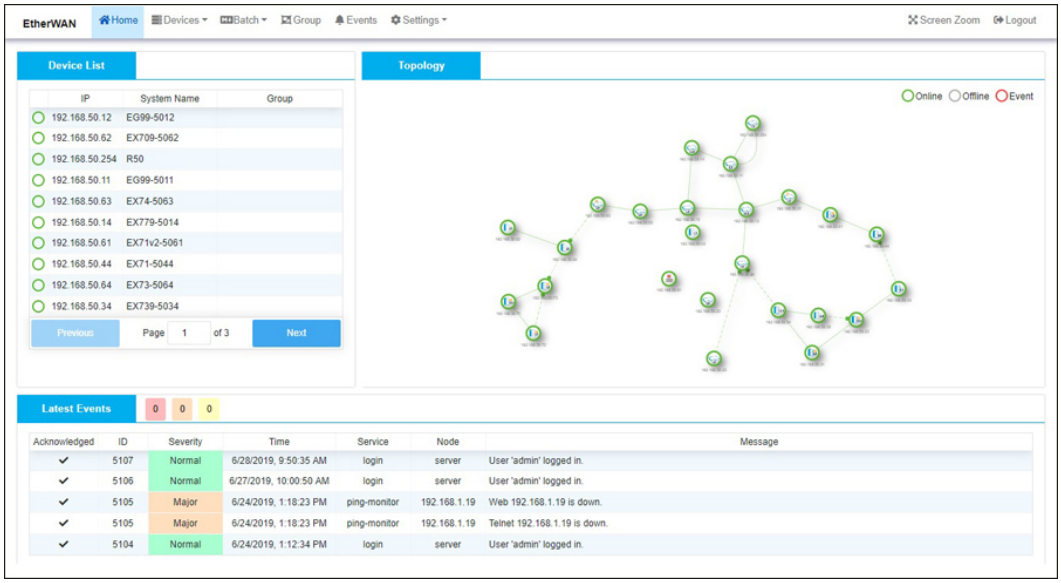


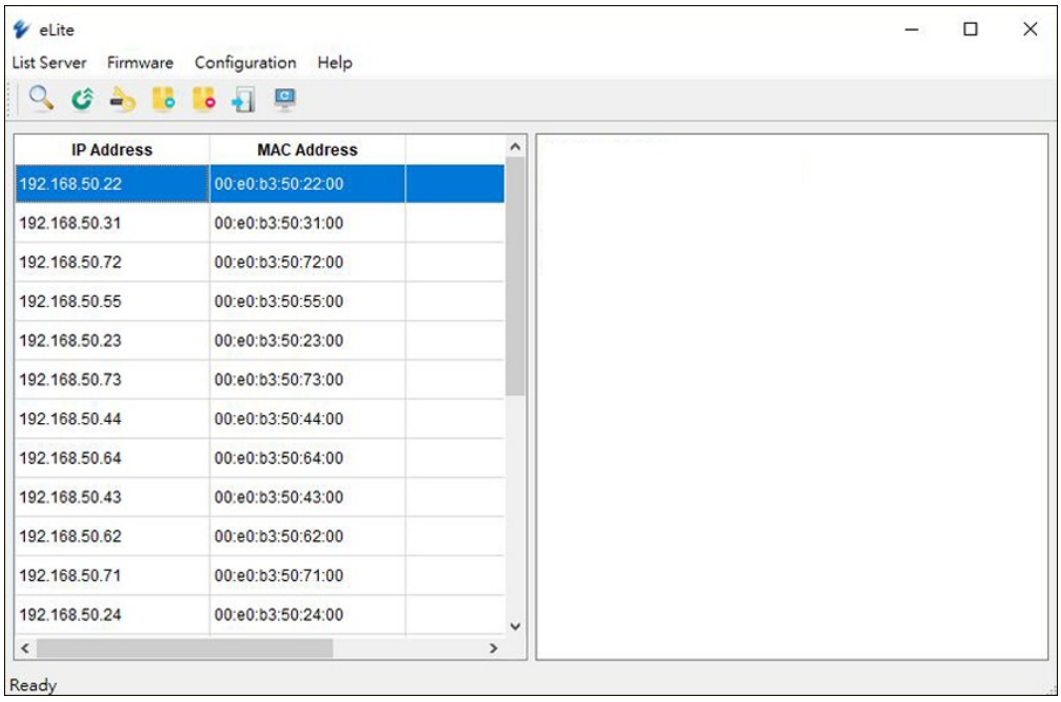
Application



Software

Network Management	eVue™ Network Configuration and Monitoring Tool
Network Discovery	eLite™ Network Discovery and IP Configuration Tool





Ordering Info

Model

EX71802-0YB	8-port 10/100BASE-TX + 2-port Gigabit
EX71620-X0B	6-port 10/100BASE-TX + 2-port 100BASE-FX
EX71622-XYB	6-port 10/100BASE-TX + 2-port 100BASE-FX +2-port Gigabit
EX71440-X0B	4-port 10/100BASE-TX + 4-port 100BASE-FX

* DIN-Rail mounting kit included.

100FX Fiber Options (X)

1	Multi Mode (SC) - 2Km
2	Multi Mode (ST) - 2Km
A	Single Mode (SC) - 20Km
B	Single Mode (SC) - 40Km
V	100BASE SFP (DDM)

* More 100FX Fiber options also available upon request.

Gigabit Port Options (Y)

1	10/100/1000BASE-TX
3	1000BASE-SX (SC) - 550m
4	1000BASE-SX (SC) - 2Km
5	1000BASE-SX (ST) - 550m
A	1000BASE-LX (SC) - 10Km
B	1000BASE-LX (SC) - 20Km
R	1000BASE-BX (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
S	1000BASE-BX (SC) WDM-TX: 1550nm/RX: 1310nm-20Km
V	100/1000BASE SFP (DDM)

* More Gigabit options also available upon request.

Accessories

Hardened 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-30-24 30W 24VDC DIN-Rail Power Supply
EB-232	Configuration Backup and Restoration Tool

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