EX46100 Series

Hardened Web-Smart 8-port 10/100BASE High Power PoE (4 x PoE) Ethernet Switch





Overview

EtherWAN's EX46100 Series provides a hardened 8-port switching platform supporting IEEE 802.3af+ Power over Ethernet, high performance switching with robust features required for mission-critical and harsh environments where sustained connectivity is crucial.

The EX46100 Series is equipped with 4 10/100BASE-TX PoE ports, in combination with two 100FX Fiber options.

The IEEE 802.3af+ PoE ports provide up to 30W/port with a total power budget of 120W, making the switch truly versatile for connecting with PoE Powered Devices (PD) with different bandwidth and power consumption requirements such as outdoor PTZ dome cameras, wireless access points, and way-side communication devices.

Users are able to access management features such as QoS based on 802.1p, DSCP, and IP precedence. With the hardened specifications, the EX46100 Series is designed to operate at -40 to 75°C in harsh environments where high ESD, shock and vibration may be present.

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

Spotlight

Hardened Grade

» Supports -40 to 75°C (-40 to 167°F) operating temperature

PoE Connectivity

» Port 1 to 4 supports IEEE 802.3af+ Power over Ethernet

Fiber Connectivity

» Up to two 100BASE-FX ports with SC and ST options

Web-Managed Interface

» Comprehensive QoS based on 802.1p, DSCP, and IP precedence

Specifications

Technology

Standards
- IEEE 802.3 10BASE-T
- IEEE 802.3u 100BASE-TX/100BASE-FX
- IEEE 802.3x Full duplex and flow control
- IEEE 802.3af Power over Ethernet (PoE)

Forward and Filtering Rate
- 14,880pps for 10Mbps
- 148,810pps for 100Mbps

Packet Buffer Memory
- 1M 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
- 1024 MAC addresses

Power

Input
- Redundant Power Inputs: Terminal Block: 47-57VDC
  DC Jack: 47-57VDC

Power Consumption
- Device: Max. 10W (without PoE)
- PoE Power Budget (depends on power input): 120W Max.

PoE Technology
- Alternative B
  Pins 7/8(-), 4/5(+)

PoE Power Output
- Port 1 to 4
- IEEE 802.3af+: up to 30W/port, 47-57VDC, 600mA Max.

Protection

• Reverse polarity protection

Mechanical

Casing

• Aluminum Case

• IP30

Dimensions

• 68 x 110 x 135mm (W x D x H)
(2.68" x 4.33" x 5.31")

Weight

• 1Kg (2.2lbs.)

Installation

• DIN-Rail (Top hat type 35mm), Panel or Rack mounting

Interface

Ethernet Ports

• 10/100BASE-TX: 6, 7 or 8 ports

• 100BASE-FX: 0, 1 or 2 ports

LED Indicators

• Per Unit: Power 1 (Green), Power 2 (Green), Power 3 (Green)

• Per Port: Link/Activity (Green)

• Per PoE Port: PoE Status (Amber)

Alarm Contact

• One relay output with current 1A/24VDC

Environment

Operating Temperature

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

Web-Smart Function Operating Temperature

• -20 to 75°C (-4 to 167°F)

Storage Temperature

• -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity

• 5% to 95% (non-condensing)

Regulatory Approvals

ISO

• Manufactured in an ISO 9001 facility

EMI

VCCI Class A
FCC Part 15B Class A
EN 61000-6-4
EN 55022 Class A

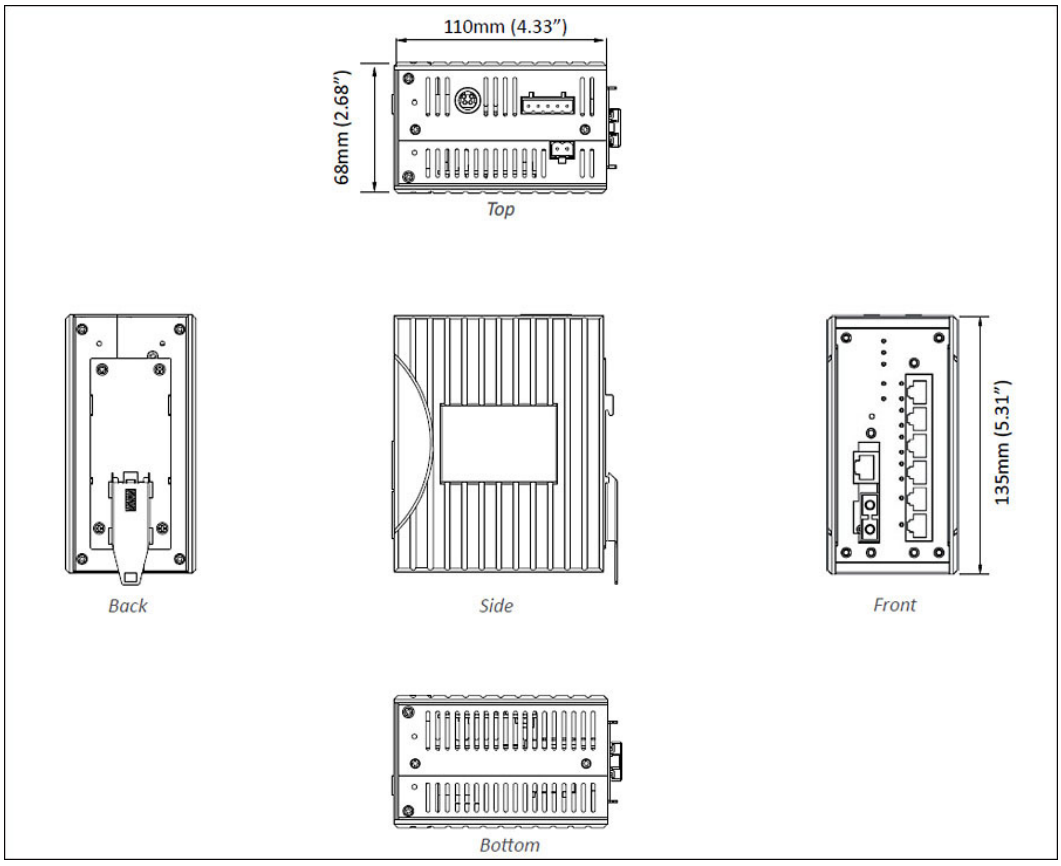
EMS

EN 61000-6-2
• EN 61000-4-2 (ESD Standards)
• EN 61000-4-3 (Radiated FRI 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)

Dimensions



Ordering Info

Model

EX46180-00B	8-port 10/100BASE-TX PoE+ Hardened Web-smart Ethernet Switch
EX46171-X0B	7-port 10/100BASE-TX +1-port 100BASE-FX PoE+ Hardened Web-smart Ethernet Switch
EX46162-X0B	6-port 10/100BASE-TX +2-port 100BASE-FX PoE+ Hardened Web-smart Ethernet Switch

* DIN-Rail mounting kit included.

100FX Fiber Options (X)

1	Multi Mode (SC) - 2Km
2	Multi Mode (ST) - 2Km
6	Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-2Km
7	Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-2Km
8	Multi Mode (SC) WDM-TX: 1310nm/RX: 1550nm-5Km
9	Multi Mode (SC) WDM-TX: 1550nm/RX: 1310nm-5Km
A	Single Mode (SC) - 20Km
B	Single Mode (SC) - 40Km
H	Single Mode (ST) - 20Km
P	Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-20Km
Q	Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-20Km
R	Single Mode (SC) WDM-TX: 1310nm/RX: 1550nm-40Km
S	Single Mode (SC) WDM-TX: 1550nm/RX: 1310nm-40Km

* More 100FX Fiber options also available upon request.

Optional Accessories

KP-AA96-480	Panel mounting Kit
KR-BK43-400	Rack mounting Kit
EDR-120-48	120W/2.5A DIN-Rail 48VDC Industrial Power Supply
NDR-240-48	240W/5A DIN-Rail 48VDC Industrial Power Supply



© EtherWAN Systems, Inc. All rights reserved. 20230407

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