EKI-2525P EKI-2526PI

5-port Industrial PoE Switch 6-port Industrial PoE Switch with Wide Temperature



Features

- Provides 5/6 Fast Ethernet ports with 4 PoE ports with injector function
- Supports 10/100 Mbps Auto Negotiation
- Provides broadcast storm protection
- Supports Ethernet ESD protection
- Provides Slim size, DIN-rail/Wall mount with IP30 metal mechanism
- Supports Redundant 48 V_{DC} power input and P-Fail relay
- Supports operating temperatures from -10 to 60°C (EKI-2525P)
- Supports wide operating temperature -40 ~ 75°C (EKI-2526PI)

Introduction

The EKI-2525P is a 5-port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet switch and EKI-2526PI is a 6-port unmanaged PoE Industrial Ethernet switch, they support 4 PoE ports which are classified as power source equipments (PSE). The PoE devoces makes centralized power supply come true and provides up to 15.4 watts of power per port. Advantech EKI PoE devices can be used to power IEEE 802.3af compliant powered devices (PD) by Ethernet cable and eliminates the need for additional power wiring. Advantech EKI PoE devices come equipped with all the standard features of the EKI family. Furthermore, it offers a 48 V_{DC} redundant power input design (EKI-2525P/EKI-2526PI), and is secured with a double protection mechanism; Power Polarity Reverse Protect and an Overload Current Resettable Fuse. Advantech EKI PoE devices come with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.3af

■ **LAN** 10/100Base-T (X)

• Transmission Distance Ethernet: Up to 100 m (EKI-2525P/EKI-2526PI)

Transmission Speed Up to 100 Mbps

Fiber Optics (EKI-252SPI)

Single-mode 1310 nm

Tx Power: -8/-15 dBm Rx Sensitivity: -34 dBm Parameters: 9/125 um

Interface

■ Connectors PoE Ports: 4 (Ports 1 ~ 4)

Ethernet x1 (EKI-2525P) Ethernet x2 (EKI-2526PI)

6-pin removable screw terminal (power & relay)

• **LED Indicators** P1, P2, P-Fail

10/100TX: Link/Activity, Duplex/Collision

Power

Power Consumption
 EKI-2525P: 65 W (Full load PoE)

EKI-2526PI: 62.6 W (Full load PoE)

Power Input
 48 V_{DC} (EKI-2525P/EKI-2526PI), redundant dual inputs

Power Output
 15.4 W at 48 V (per PoE port)

Fault Output
 1 Relay Output

Mechanism

Dimensions (W x H x D) 37 x 140 x 95 mm (1.46" x 5.51" x 3.74")

(EKI-2525P)

48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74")

(EKI-2526PI)

• **Enclosure** IP30, Metal shell with solid mounting kits

Mounting DIN-rail, Wall

Protection

Reverse PolarityOverload currentPresent

Environment

• Operating Temperature $-10 \sim 60^{\circ}\text{C} (14 \sim 140^{\circ}\text{F}) (\text{EKI-}2525\text{P})$

-40 ~ 75°C (-40 ~ 167°F) (EKI-2526PI)

Storage Temperature Operating Humidity
 Storage Humidity
 Storage Humidity
 40 ~ 85°C (-40 ~ 185°F)
 5 ~ 95% (non-condensing)
 0 ~ 95% (non-condensing)

MTBF 440,132 hours

Certification

Safety UL 60950-1, CAN/CSA-C22.2 No.60950

EMI FCC Part 15 Subpart B Class A, EN 55022 Class A

EMS EN 61000-4-2

EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

Shock
 Freefall
 Vibration

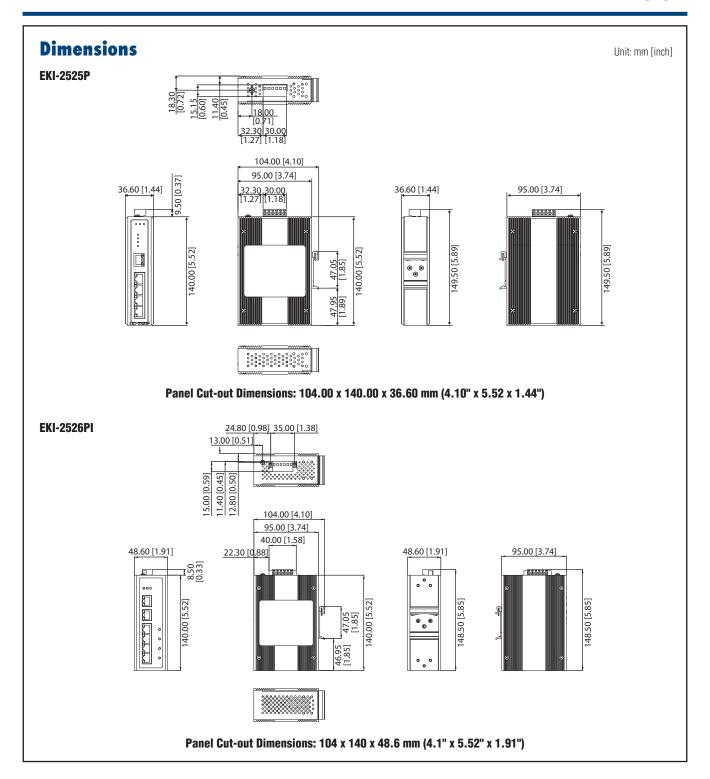
EIN 61000-4-6

IEC 60068-2-27

IEC 60068-2-32

IEC 60068-2-6

Patent http://www.advantech.com/legal/patent



EKI-2525P
 EKI-2526PI
 5-port Switch with 4 port-PoE
 6-port Switch with 4 port-PoE

EKI-2525PA EKI-2528PAI

5-port Industrial PoE Switch with 24/48 V_{DC} Power Input

8-port Industrial PoE Switch with 24/48 V_{DC} Power Input and Wide Temperature



Features

- Provides 5/8 Fast Ethernet ports with 4 PoE ports with injector function
- Supports 10/100 Mbps Auto Negotiation
- Provides broadcast storm protection
- Supports Ethernet ESD protection
- Provides power line EFT protection
- Provides slim size, DIN-rail/Wall mount with IP30 metal mechanism
- Supports Redundant 24/48 V_{DC} power input and P-Fail Relay
- Supports operating temperatures from -10 to 60°C (EKI-2525PA)
- Supports wide operating temperature -40 ~ 75°C (EKI-2528PAI)

Introduction

The EKI-2525PA and EKI-2528PAI are a 5/8-port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet switches that supports 4 PoE ports which are classified as power source equipment (PSE). These PoE devices make centralized power supply possible and provide up to 15.4 watts of power per port. Advantech EKI PoE devices can be used to power IEEE 802.3af compliant powered devices (PD) through Ethernet cable and eliminate the need for additional power wiring. Advantech EKI PoE devices come equipped with all the standard features of the EKI family. Furthermore, they offer a 24/48 V_{DC} redundant power input design and is secured with a double protection mechanism; Power Polarity Reverse Protect and an Overload Current Resettable Fuse. Advantech EKI PoE devices come with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.3af

LAN 10/100Base-T (X)
 Transmission Distance Up to 100 m
 Transmission Speed Up to 100 Mbps

Interface

■ **Connectors** PoE Ports: 4 (Ports 1 ~ 4)

Ethernet ports: 1 (Port 5 ~ Port 8), EKI-2525PA Ethernet ports: 4 (Port 5 ~ Port 8), EKI-2528PAI 6-pin removable screw terminal (power & relay)

• LED Indicators P1, P2, P-Fai

10/100TX: Link/Activity, Duplex/Collision

Power

Power Consumption
 EKI-2525PA: 62.5 W (Full load PoE)
 EKI-2528PAI: 65 W (Full load PoE)

24/48 V_{DC}, redundant dual inputs 15.4 W at 48 V (per PoE port)

• Fault Output 1 Relay Output

Mechanism

Power Input

Power Output

Dimensions (W x H x D) 48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74")
 Enclosure IP30, Metal shell with solid mounting kits

Mounting DIN-rail, Wall

Protection

Reverse Polarity PresentOverload current Present

Environment

Operating Temperature -10 ~ 60°C (14 ~ 140°F) (EKI-2525PA)
 Wide temp. model -40 ~ 75°C (-40 ~ 167°F) (EKI-2528PAI)

• **MTBF** 440,132 hours

Certification

• Safety UL508

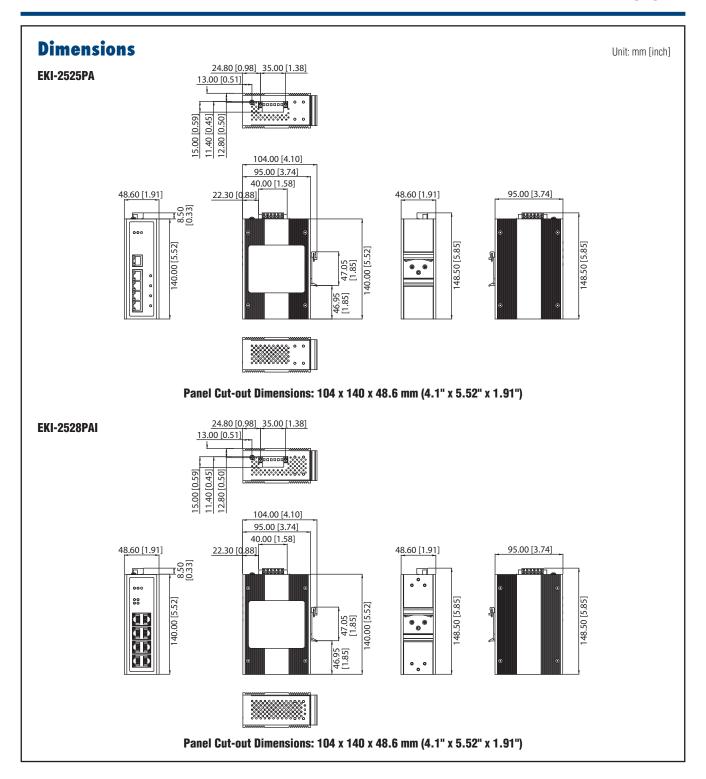
■ EMI FCC Part 15 Subpart B Class A, EN 55022 Class A

■ **EMS** EN 61000-4-2 EN 61000-4-3

EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

Shock
 Freefall
 Vibration
 IEC 60068-2-32
 IEC 60068-2-6

• Patent http://www.advantech.com/legal/patent



■ **EKI-2525PA** 5-port Switch with 4 port-PoE and 24/48 V_{DC} Power

Input

• **EKI-2528PAI** 8-port Switch with 4 port-PoE and 24/48 V_{DC} Power

Input (Wide Temp)

EKI-2701HPI IEEE 802.3af/at Gigabit PoE+ Injector with Wide Temperature

with Wide Temperature



Features

- Supports 10/100/1000Base-T (X) for PoE+ OUT and Data IN
- IEEE 802.3af/at compliant, supports a full 30 watt output
- Power input (24 ~ 48 V_{DC}), inject 30 W for each port
- Provides slim size and DIN-rail/Wall mount with IP30 metal mechanism
- Supports operating temperatures from -40 to 75°C



Introduction

With the technology of PoE (Power over Ethernet), we can transfer both data and electrical power to Ethernet-enabled devices using a standard CAT5 cable. EKI-2701HPI is compliant IEEE 802.3at/at and inject 30W for PD device. This product can operate in a wide range of Temp. between -40 to 75°C and support wide power input range between 24 to 48 Vpc.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab

LAN 10/100/1000Base-T(X) • Transmission Distance Up to 100 m

 Transmission Speed up to 1000 Mbps

Interface

Connectors PoE OUT: RJ45 DATA IN: RJ45

6-pin removable screw terminal

 LED Indicators PWR1, PWR2, PoE status, Link/Activity

Power

Max. 33.36 W @ 24 VDC (Full load PoE) Power Consumption Power Input $24 \sim 48 \ V_{DC}$, redundant dual power inputs

 Power Output 30 W @ 55 V_{DC}

Mechanism

 Dimensions (W x H x D) 37 x 140 x 95 mm (1.46" x 5.51" x 3.74") Enclosure IP30, Metal shell with solid mounting kits

Mounting DIN-rail, Wall

Protection

Reverse Present Overload Current Present

Environment

• Operating Temperature $-40 \sim 75^{\circ}\text{C} (-40 \sim 167^{\circ}\text{F})$ **Storage Temperature** $-40 \sim 85^{\circ}\text{C} (-40 \sim 185^{\circ}\text{F})$ Operating Humidity 5 ~ 95% (non-condensing) Storage Humidity 0 ~ 95% (non-condensing) MTBF 1.419.817 hours

Certification

UL508 Safety

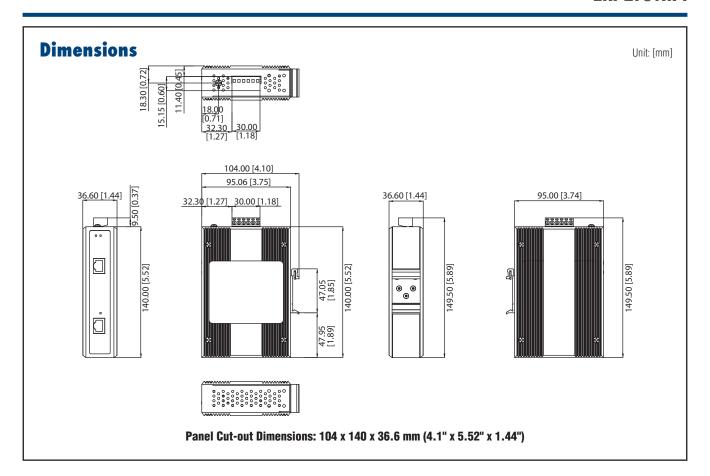
FCC Part 15 Subpart B Class A, EN 55022 Class A EMI

EMS EN 61000-4-2

EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

Shock IEC 60068-2-27 IEC 60068-2-32 Freefall Vibration IEC 60068-2-6

Patent http://www.advantech.com/legal/patent



• **EKI-2701HPI** PoE+ Injector, supports a full 30 W output

EKI-2701PSI

Industrial PoE Splitter with Wide Temperature



Features

- Supports 10/100/1000 Base-TX for PoE in and Data out
- IEEE 802.3af compliant split power/data from PoE equipment
- Power isolation and short circuit protection for power output
- Supports output power up to 12.95 W at 24 V_{DC}
- Provides slim size and DIN-rail/Wall mount with IP30 metal mechanism
- Supports operating temperatures from -40 to 75°C









Introduction

With the technology of PoE (Power over Ethernet), we can transfer both data and electrical power to Ethernet-enabled devices using a standard Ethernet CAT5 cable, EKI-2701PSI plays the role of powered device (PD) and splits power from PoE to Ethernet devices. In this case, both power and data can be transmitted up to 328 feet (100m) from power source equipment (PSE). This product can operate in a wide range of temperature between -40 and 75°C, and the rugged hardware design makes EKI-2701PSI perfect to ensure your PoE Ethernet equipment can meet industrial applications demanding.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3af, 802.3ab LAN 10/100/1000 Base-TX

• Transmission Distance Up to 100 m up to 1000 Mbps Transmission Speed

Interface

Connectors PoE IN: RJ-45

DATA OUT: RJ-45

6-pin removable screw terminal (power output)

LED Indicators

Link/Activity, Duplex/Collision

Power

 Power Consumption Max. 17.76 W Power Input 44 ~ 57 V_{DC} Power Output 12.95 W @ 24 V_{DC}

Mechanism

 Dimensions (W x H x D) 37 x 140 x 95 mm (1.46" x 5.51" x 3.74") Enclosure IP30, Metal shell with solid mounting kits

Mounting DIN-rail, Wall

Protection

 Overload current Present

Environment

• Operating Temperature $-40 \sim 75^{\circ}\text{C} (-40 \sim 167^{\circ}\text{F})$ ■ Storage Temperature -40 ~ 85°C (-40 ~ 185°F) Operating Humidity 5 ~ 95% (non-condensing) Storage Humidity 0 ~ 95% (non-condensing)

MTBF 440,132 hours

Certifications

UL 60950-1, CAN/CSA-C22.2 No.60950 Safety - EMI FCC Part 15 Subpart B Class A, EN 55022 Class A

EMS EN 61000-4-2 EN 61000-4-3 EN 61000-4-4

EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 IEC 60068-2-27

Shock IEC 60068-2-32 Freefall Vibration IEC 60068-2-6

Patent http://www.advantech.com/legal/patent

Ordering Information

EKI-2701PSI PoE Splitter w/ Wide Temp

EKI-2726FHPI

4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch



Features

- All Gigabit Ethernet ports for 4 Copper and 2 SFP
- Back-plane (Switching Fabric): 12Gbps
- Embedded 4 ports PoE inject function
- Provide 30W at 55V power output
- Redundant Power Design
- IP30 Chassis Design
- Supports operating temperatures from -40 ~ 75°C



Introduction

The EKI-2726 FHPI switch has 4 x 10/100/1000BASE-T Ethernet ports with PoE+ function and 2 x SFP sockets, it has been designed to work within a wide operating temperature range. This cost-effective solution, meets the high reliability requirements and demands of industrial applications. The equipment also meets the IEEE 802.3 at standard and can provide 30Watts output per PoE port.

Specifications

Communications

Standard

 IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab, 802.3z

 LAN

 10/100/1000Base-T 1000Base-SX/LX/LHX/XD/ZX/EZX

 Transmission Distance

 Ethernet: Up to 100 m SFP: Up to 110 km (depends on SFP)

 Transmission Speed
 Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps

Interface

 Connectors

 10/100/1000T(X): RJ-45 x 4
 SFP: Gigabit Base x 2

 LED Indicators

 System: P1, P2, P-Fail, Per port: Link/Activity, Speed, PoE (1 to 4 ports)

Power

Power Consumption
 Power Input
 Fault Output
 S.5 watts @ 48V_{DC} (Ethernet only)
 48 V_{DC} (44V_{DC} to 57 V_{DC}), redundant dual inputs
 Fault Output

Mechanism

Dimensions (W x H x D)
 Enclosure
 Mounting
 59.6 x 152 x 105 mm (2.35" x 5.98" x 4.13")
 IP30, Metal shell with solid mounting kits
 DIN-rail, Wall

Protection

Power Reverse PresentOverload Current Present

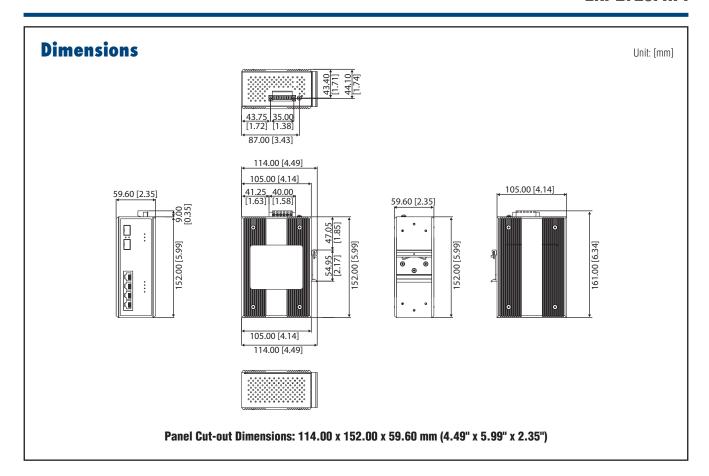
Environment

Operating Temperature
 Storage Temperature
 Operating Humidity
 MTBF
 Operating Temperature
 -40 ~ 75°C (-40 ~ 167°F)
 -40 ~ 85°C (-40 ~ 185°F)
 5 ~ 95% (non-condensing)
 339,740 hours

Certification

UL/cUL508 Safety Class I, Division 2, Groups A, B, C and D - EMI FCC Part 15 Subpart B Class A, EN 55022 Class A EN 61000-4-2 EMS EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 Shock IEC 60068-2-27 Freefall IEC 60068-2-32 Vibration IEC 60068-2-6

Patent http://www.advantech.com/legal/patent



• **EKI-2726FHPI** 4G+2 SFP Unmanaged Gigabit Switch with 4-port PoE+(IEEE 802.3af/at)

EKI-3725P

5-port Gigabit Unmanaged PoE Industrial Ethernet Switch



Features

- Supports 4 IEEE802.3af 15.4W PoE ports
- Supports IEEE 802.3az, Energy Efficient Ethernet standard
- -Automatically powers down ports that have no link
- -Budgets power output for different Ethernet cable length
- Support IEEE 802.1p QoS- VIP port setting
 - -Ensures time sensitive data gets delivered efficiently, even during bursts of high data traffic.
 - -Ensures video streaming through switch with high priority.
- Supports 9,216 Byte Jumbo Frames
- Supports redundant 24 ~ 48 V_{DC} power input and P-Fail relay
- In Loop detection



Introduction

The EKI-3725P is a new generation product with a green Ethernet design and supports 4 ports IEEE802.3af 15.4W PoE. It features green solutions that automatically adjust power consumption by detecting the link status and cable length. Designed with 1 "VIP" port to get optimal bandwidth for media traffic through VIP ports users can experience better performance multimedia streaming preferred through a prioritized bandwidth setting. The device comes with compact metal housing that is IP40 rated to protect it against dusty industrial environments. The wide power input (21.6 to 52.8 V_{DC}) is designed to operate in areas of unstable power and rugged environments. It also provides an event alarm and in the event of a power failure and connection loop, the intergrated LED will activate the alarm to notify administrators.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab,

802.3af

LAN 10/100/1000Base-T(X)
 Transmission Distance Up to 100 m
 Transmission Speed Up to 1000 Mbps

Interface

Connectors
 5 x RJ45 with 4 PoE ports

6-pin removable screw terminal (power & relay)

 LED Indicators
 P1, P2, P-Fail, Loop detection PoE 10/100T (X): Link/Activity, Speed

Switch Properties

MAC Table Size
 Packet Buffer Size
 Switch Fabric Speed
 Jumbo Frame
 2K
 1M bit
 10Gbps
 9.216 byte

Power

Power Consumption System: 4.51Watts

PoE budget: 61.6 Watts

Power Input
 24 ~ 48 V_{DC}, redundant dual inputs

• Fault Output 1 Relay Output

Mechanism

Dimensions (W x H x D) 25.6 x 120 x 83 mm (1.01" x 4.73" x 3.27")
 Enclosure IP40, metal shell with solid mounting kits

Mounting DIN-rail, Wall

Protection

Reverse Polarity PresentOverload current Present

Environment

Operating Temperature -10 ~ 60°C (14 ~ 140°F)
 Storage Temperature -40 ~ 85°C (-40 ~ 185°F)
 Operating Humidity 5 ~ 95% (non-condensing)
 Storage Humidity 0 ~ 95% (non-condensing)

MTBF 434,533 hours

Certification

Safety
 UL 60950-1, CAN/CSA-C22.2 No.60950
 EMI
 FCC Part 15 Subpart B Class A, EN 55011/55022

Class A

EMS EN 61000-4-2 (Level 3)

EN 61000-4-3 (Level 3) EN 61000-4-4 (Level 3) EN 61000-4-5 (Level 3) EN 61000-4-6 (Level 3) EN 61000-4-8 (Level 3)

 Shock
 IEC 60068-2-27

 Freefall
 IEC 60068-2-32

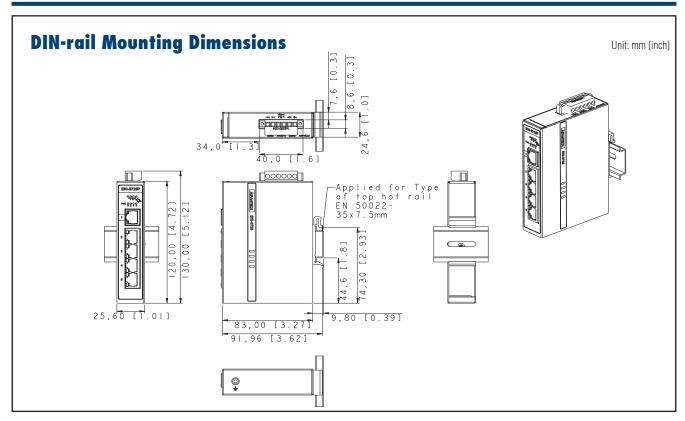
 Vibration
 IEC 60068-2-6

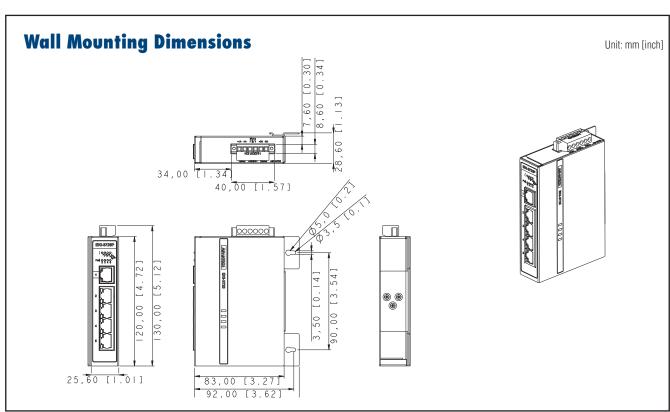
Patent http://www.advantech.com/legal/patent

Ordering Information

• **EKI-3725P** 5-port Gigabit Unmanaged Industrial Ethernet PoE

Switch





EKI-5624P EKI-5624PI

4FE with PoE+2GE Industry Ethernet Proview PoE Switch



Features

- Four Fast Ethernet ports comply with IEEE 802.3af/at
- PoE standard and Two Gigabit Ethernet ports
- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40~65°C operating temperature range (EKI-5624PI)
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12V~24V (9V ~ 36V) power input and P-Fail relay
- Loop detection

■ C € FCC

Introduction

The EKI-5624P and EKI-5624PI switches support Power-over-Ethernet on ports 1 to 4. The switch is classified as power source equipment(PSE). Also it is the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. The switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance. The switches are compliant E-mark for in-vehicle application and surveillance system.

Specifications

Communications

Standard
 IEEE 802.3af/at, 802.3, 802.3u, 802.3ab, 802.3az, 802.3p
 802.3x, 802.1p

LAN 10/100BaseT(X),10/100/1000BaseT(X)

Transmission Distance
 Transmission Speed
 Up to 1000 m
 Up to 1000 Mbps

Interface

■ **Connectors** 4 x 10/100BaseT(X) with PoE + 2 x 10/100/1000 Base

T(X)

6-pin removable screw terminal (power & relay)

LED Indicators

System LED
 P1, P2, P-Fail, Loop, PoE

Port LED status
 10/100 BaseT(X) or 10/100/1000Base T(X): LNK /ACT,

Speed, PoE port

Physical

Enclosure Metal / Aluminum Shell with solid mounting kits

• Protection Class IP3

Installation
 DIN-Rail and Wall-Mount

Dimensions (W x H x D) 74 x 152 x 105 mm (2.913 x 5.984 x 4.137) inch

Environment

Operating Temperature Wide Temp Models: -40 to 75°C (-40 to 167°F)

Standard Models: -25 to 60°C (-4 to 140°F)

Storage Temperature -40 ~ 85°C (-40 ~ 185°F)
 Relative Humidity 10 ~ 95% (non-condensing)

Switch Properties

MAC Address
 Packet Buffer
 Switching Capacity
 2K entries
 1 Mbit
 4.8 Gbps

Power

Certification

EMS

• Safety IEC/EN 60950, UL61010-2-201, e-Mark Comply with

*Class 1 Division 2, * IECEx, *ATEX

■ **EMC** CE, FCC, e-Mark

EMI EN 55011/55022 Class A, EN 61000-6-4,

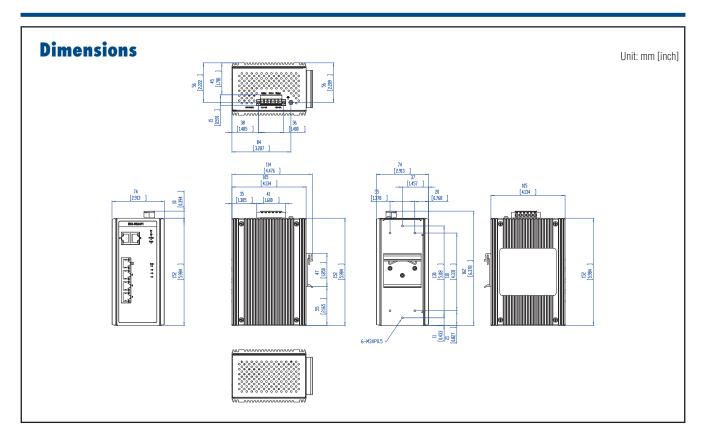
FCC Part 15 Subpart B Class A EN 55024/ EN 61000-6-2

> EN 61000-4-2 (ESD) Level 3 EN 61000-4-3 (RS) Level 3; EN 61000-4-4 (EFT) Level 3 EN 61000-4-5 (Surge) Level 3; EN 61000-4-6 (CS) Level 3

EN 61000-4-8 (Magnetic Field) Level 3

Shock IEC 60068-2-27
 Freefall IEC 60068-2-32
 Vibration IEC 60068-2-6

Patent http://www.advantech.com/legal/patent



■ EKI-5624P

 $4\,x\,10/100BaseT(X)$ with PoE + 2GE , -25 to 60°C operating temperature

EKI-5624PI

4 x 10/100BaseT(X) with PoE + 2GE , -40 to 65°C operating temperature

EKI-5729P EKI-5729PI

8 GE with PoE + 2GE Industry Ethernet Proview PoE Switch



Features

- Full Gigabit Ethernet ports and comply with IEEE
- 802.3af/at PoE standard
- · Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 to 65°C operating temperature range (EKI-5729PI)
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Provides 5/6 Fast Ethernet ports with 8 PoE ports
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12V~24V (9V ~ 36V) power input and P-Fail relay
- Loop detection

■ C ∈ FCC

Introduction

The EKI-5729P and EKI-5729PI switches support Power-over-Ethernet on ports 1 to 8. The switch is classified as power source equipment (PSE). Also it is the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. The switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance. The switches are compliant E-mark for in-vehicle application and surveillance system.

Specifications

Communications

Standard IEEE 802.3af/at, 802.3, 802.3u, 802.3ab, 802.3az,

802.3x, 802.1p

LAN 10/100/1000Base-T(X)

Transmission Distance Up to 100 m

Transmission Speed Up to 1000 Mbps

Interface

Connectors
 8 x 10/100/1000 BaseT(X) with PoE + 2 x 10/100/1000

BaseT(X)

6-pin removable screw terminal (power & relay)

LED Indicators

System LED
 P1, P2, P-Fail, Loop, PoE

Port LED status
 10/100/1000Base T(X): LNK /ACT, Speed, PoE port

Physical

Enclosure Metal / Aluminum Shell with solid mounting kits

Protection Class

Installation
 DIN-Rail and Wall-Mount

Dimensions (W x H x D) 74 x 152 x 105 mm (2.913 x 5.984 x 4.137) inch

Environment

- **Operating Temperature** Wide Temp Models: -40 to 75 $^{\circ}$ C (-40 to 167 $^{\circ}$ F)

Standard Models: -25 to 60° C (-4 to 140°F)

Storage Temperature -40 ~ 85°C (-40 ~ 185°F)
 Relative Humidity 10 ~ 95% (non-condensing)

Switch Properties

MAC Address
 Packet Buffer
 Switching Capacity
 8K entries
 4.1 Mbit
 20 Gbps

Power

Power Consumption 6w (System)
 Power Input 12-24 Vdc, (7A-3A)
 Power Budget 60w @ 24v 50w @ 12v

Certification

EMS

• **Safety** IEC/EN 60950, UL61010-2-201, e-Mark Comply with

*Class 1 Division 2, * IECEx, *ATEX

EMC
 CE, FCC, e-Mark

■ **EMI** EN 55011/55022 Class A, EN 61000-6-4,

FCC Part 15 Subpart B Class A EN 55024/ EN 61000-6-2

EN 61000-4-2 (ESD) Level 3 EN 61000-4-3 (RS) Level 3; EN 61000-4-4 (EFT) Level 3 EN 61000-4-5 (Surge) Level 3;

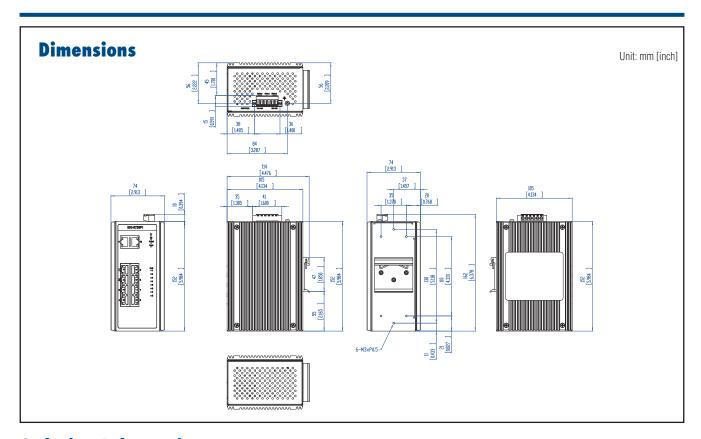
> EN 61000-4-6 (CS) Level 3 EN 61000-4-8 (Magnetic Field) Level 3

■ Shock IEC 60068-2-27
■ Freefall IEC 60068-2-32

Vibration
 Patent
 IEC 60068-2-6
 http://www.advantech.com/legal/patent

ADVANTECH

Industrial Ethernet Soultions



■ EKI-5729P

 $8 \times 10/100/1000 BaseT(X)$ with PoE + 2GE , -25 to 60°C operating temperature

EKI-5729PI

-25 to 60°C operating temperature 8 x 10/100/1000BaseT(X) with PoE + 2GE , -40 to 65°C operating temperature

EKI-7428G-4CI EKI-7428G-4CPI

24G+4G Combo port L2 Managed Switch 24G+4G Combo port L2 Managed PoE Switch



Features

- 24 x IEEE 802.3 af/at PoE Gigabit ports + 4 x Gigabit Copper/SFP combo ports, provide up to 30Watts per port
- SFP socket for Easy and Flexible Fiber Expansion
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB
- IXM function enables fast deployment
- Security:802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption),HTTPS,SSH and SNMPv3
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D),MSTP
- 48V_{DC} power input (46-57 V_{DC} for POE af , 53 -57 V_{DC} is recommended for at) and 2 relay output
- -40 ~ 70°C wide-range operating temperature



Introduction

The EKI-7428G is an industrial-class layer 2 full managed switch including 24 Gigabit ports and 4 Gigabit combo ports. It is designed for rack-mount installation, and can be deployed in demanding industrial environments. It is suitable for edge to core industrial networks. It integrates Layer 2 switching software, which is optimized for scale and performance, delivering wire speed across all ports up to 56 Gbps for layer 2 traffic forwarding. In addition, the PoE design provides up to 30 watts per port to fulfill high power consumption device, moreover, it supports high reliability with -40 ~ 70°C operating temperatures, and dual 48 V_{DC} input power design ensure vital network capabilities with minimum downtime. It is also embedded with Advantech IXM, which benefits users by giving them fast deployment and can dramatically save engineer's time and costs.

Specifications

Communications

Standard IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab

- LAN 10/100/1000Base-T (X), Optional 100Base-FX,

1000Base-SX/LX/LHX/XD/ZX/EZX

• Transmission Distance Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45

cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)

 Transmission Speed Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation

Gigabit Fiber: Up to 1000 Mbps

Interface

VLAN

 Connectors 24 x RJ45 (Ethernet)

4 x RJ45/SFP (mini-GBIC) combo ports 4-pin removable screw terminal (Power) 3-pin removable screw terminal (Relay) 10/100T (X): Link/Activity, Duplex/Collision

 LED Indicators Gigabit Copper: Link/Activity, Speed (1000 Mbps)

SFP: Link/Activity

Console RS-232 (RJ45)

Network Management

Configuration Web browser, Telnet, Serial console, TFTP, SNMPv1/

v2c/v3, Port Speed/Duplex Configuration, IPv6 MTBF

IEEE 802.1Q, GVRP, Port-based VLAN Advantech X-Ring, 802.1w/D RSTP/STP Redundancy

IP Access security, port security, DHCP client, Port and Security

IP Binding, 802.1X Port Access Control, IGMP Snooping/Query for multicast group

management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control

Port Mirroring, Real-time traffic statistic, MAC Address Diagnostics Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

Enclosure IP30, metal shell with solid mounting kits Dimensions (W x H x D) 438 x 43.6 x 259.20 mm (17.24" x 1.72" x 10.2")

 Mounting 1U 19" Rack mount

Power

20W @ 24V (EKI-7428G-4CI) Power Consumption 20W @ 48V (EKI-7428G-4CPI)

 Power Budget 685W (EKI-7428G-4CPI) Power Input EKI-7428G-4CI 12-48 V_{DC}

EKI-7428G-4CPI 48 V_{DC} (46 to 57 V_{DC}), 53 -57 V_{DC} is recommended for 802.3at

 Fault Output 2 Relay Outputs

Protection

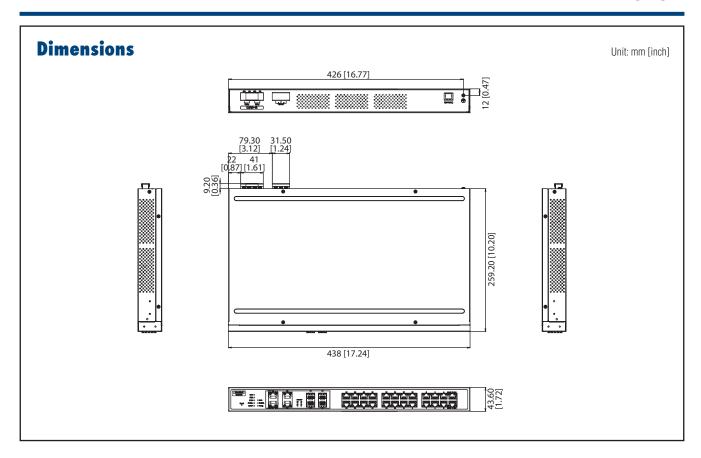
 Power Reverse Present **Overload Current** Present

Environment

■ Operating Temperature -40 ~ 70°C (-40 ~ 158°F) Storage Temperature -40 ~ 85°C (-40 ~ 185°F) Operating Humidity 10 ~ 95% (non-condensing) Storage Humidity 10 ~ 95% (non-condensing) EKI-7428-4CI: 787.940 hours

EKI-7428G-4CPI: 424,517 hours

Traffic Control



Certification

Safety
 EMI
 UL 61010-2-201
 CE FCC EN55022 Class A

EN 61000-4-2

EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

Shock IEC 60068-2-27
 Freefall IEC 60068-2-32
 Vibration IEC 60068-2-6
 Railway Track Side EN 50121-4

 Patent http://www.advantech.com/legal/patent

Ordering Information

• EKI-7428G-4CI-AE 24GE+4G Combo Port Managed Ethernet Switch w/ Wide Temp

• EKI-7428G-4CPI-AE 24G+4G Combo Port POE Managed Ethernet Switch w/ Wide Temp

EKI-7659CPI

8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature



Features

- 2 Gigabit Copper/SFP combo ports, plus 8 PoE injector ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures -40 ~ 75°C

Introduction

The EKI-7659CPI supports eight Power over Ethernet (PoE) ports and two Gigabit combo ports. The PoE device helps realize a centralized power supply solution and provides up to 15.4 watts of power per port. To create reliability in your network, the EKI-7659CPI comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7659CPI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications

• **Standard** IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.3ad, 802.3ab, 802.3af, 802.1D, 802.1p, 802.1p, 802.1Q, 802.1X

 LAN 10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX

• Transmission Distance Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45

cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)

■ **Transmission Speed** Ethernet: 10/100 Mbps Auto-Negotiation

Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation

Gigabit Fiber: Up to 1000 Mbps

Interface

Connectors
 8 x RJ45 (Ethernet)

2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power&Relay)

LED Indicators
 System: PWR, PWR1, PWR2, R.M., P-Fail
 10/100T (X): Link/Activity, Duplex/Collision

Gigabit Copper: Link/Activity, Speed (1000 Mbps)

SFP: Link/Activity

Console RS-232 (RJ45)

Network Management

• Configuration Web browser, Telnet, Serial console, TFTP, SNMPv1/

v2c/v3, Port Speed/Duplex Configuration, IPv6

VLAN

IEEE 802.1Q. GVRP. Port-based VLAN

• **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250

pcs full loading ring structure), Dual Homing, Dual

Ring, Couple Ring, 802.1w/D RSTP/STP

• **Security** IP Access security, port security, DHCP Server, Port

and IP Binding, 802.1X Port Access Control, SSL

• Traffic Control IGMP Snooping/Query for multicast group

management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/DSCP priority queuing, IEEE 802.3x flow control

 Diagnostics
 Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

Enclosure
 IP30, metal shell with solid mounting kits
 Dimensions (W x H x D) 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")

Mounting DIN-rail, Wall

Power

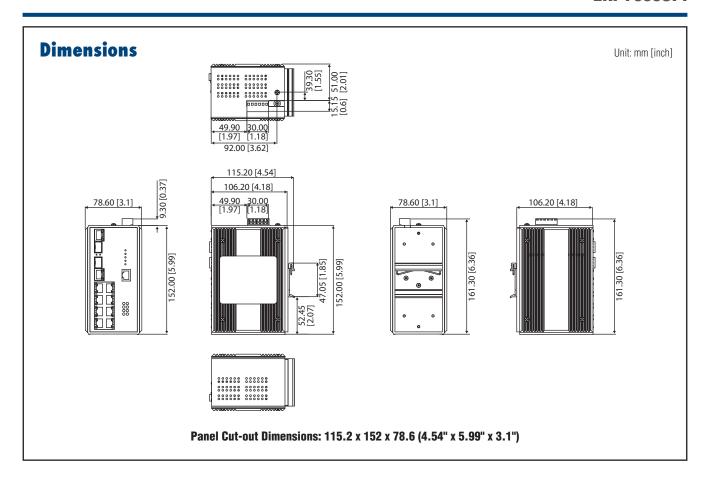
Power Consumption 116 W (Full load PoE)

Power Input
 Power Output
 48 V_{DC}, redundant dual power input
 15.4W at 48V (per PoE port)

• Fault Output 1 Relay Output

Protection

Power Reverse PresentOverload Current Present



Environment

Operating Temperature -40 ~ 75°C (-40 ~ 167°F)
 Storage Temperature -40 ~ 85°C (-40 ~ 185°F)
 Operating Humidity 5 ~ 95% (non-condensing)
 Storage Humidity 0 ~ 95% (non-condensing)

MTBF 190,200 hours

Certification

■ Safety UL 60950-1, CAN/CSA-C22.2 No.60950
■ EMI FCC Part 15 Subpart B Class A, EN 55022 Class A

■ EMS EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5

EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 IEC 60068-2-27

Shock IEC 60068-2-27
 Freefall IEC 60068-2-32
 Vibration IEC 60068-2-6

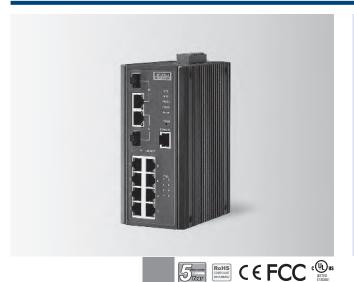
Patent http://www.advantech.com/legal/patent

Ordering Information

EKI-7659CPI
 8FE + 2G Combo Port Managed PoE Ethernet Switch
 w/Wide Temp

EKI-7710E-2CP EKI-7710E-2CPI

8FE+2G Port Gigabit Managed Redundant Industrial PoE Switch



Features

- 8 x IEEE 802.3 af/at PoE Fast Ethernet ports + 2 x Gigabit Copper/SFP combo ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- IXM function enables fast deployment
- Security: 802.1x (Port-Based, MD5/TLS/PEAP Encryption), RADIUS
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- -40 ~ 75°C wide-range operating temperature (EKI-7710E-2CPI)
- Dual 24~48 V_{DC} power input and 1 relay output

Introduction

The EKI-7710E-2CP/2CPI supports eight Power over Ethernet (PoE) ports and two Gigabit combo ports. It can provide up to 30 watts per port to fulfill high power consumption PD (Power Device). Besides, it is embedded with Advantech IXM function, this can benefit users for fast deployment and can dramatically save engineers time and costs. The EKI-7710E series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7710E series is equipped with X-Ring Pro which can achieve ultra high speed recovery time of less than 20 ms to ensure network stability.

Specifications

Interface	,
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■ I/O Port 8 x 10/100Base-T/TX RJ-45 2 x RJ-45/SFP(mini-GBIC)Combo port ■ Console port RS-232 (RJ45)

Power Connector

6-pin screw Terminal Block (including relay)

Physical

Enclosure Metal Shell
 Protection Class IP 30
 Installation DIN-Rail

Dimensions (W x H x D) 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

LED Display

System LED
 PWR1, PWR2, SYS, Alarm and R.M.
 Port LED
 Link / Speed / Activity / PoE

Environment

■ **Operating Temperature** -40 ~ 75°C (-40 ~ 167°F) 7710E-2CPI -10 ~ 60°C (-40 ~ 140°F) 7710E-2CP

• Storage Temperature $-40 \sim 85^{\circ}\text{C}$

Ambient Relative Humidity
 Humidity
 10 ~ 95% (non-condensing)
 10 ~ 95% (non-condensing)

Power

■ **Power Consumption** 12.1W @ 48V_{DC} (System)

Power Input
 24~48 V_{DC}, redundant dual power input

Power Budget 120W
Fault Output 1 Relay Output

Certification

 EMI CE, FCC Class A
 Safety UL508 UL60950*, C1D2*

• EMC EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8

*= Compliant

Patent http://www.advantech.com/legal/patent

L2 Features

L2 MAC Address 8KJumbo Frame 9216 Bytes

■ **VLAN Group** 256 (VLAN ID 1~4094)

VLAN Arrange
 Port based VLAN, Q-in-Q (VLAN Stacking), GVRP

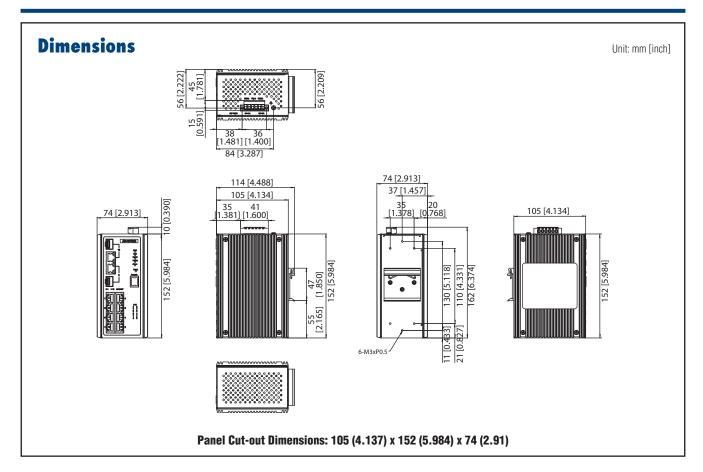
Port Mirroring
 Per port, Multi-source port,
 IP Multicast
 IGMP Snooping v1/v2/v3, MLD

Snooping, IGMP Immediate leave

Storm Control
 Broadcast, Multicast, Unknown unicast
 Redundancy
 IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE

802.1w-RSTP, X-Ring Pro, with ultra high-speed

recovery time less than 20ms



QoS

Priority Queue WRR (Weighted Round Robin), SP (Strict Scheduling
 Scheduling Priority) Hybrid Priority

Class of Service
 Rate Limiting
 IEEE 802.1p Based CoS, IP TOS, DSCP based CoS
 Ingress Rate limit, Egress Rate limit

• Link Aggregation IEEE 802.3ad Dynamic Port Trunking, Static Port

Trunking

Security

Port Security Static, Dynamic

Authentication
 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption)

Management

• **DHCP** Client, Server, Option66/67/82

Access
 SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB,

Private MIB

• Security access SSH2.0, SSL

• **Software upgrade** TFTP, HTTP, Dual Image

• NTP SNTP client

Ordering Information

• EKI-7710E-2CPI-AE 8FE + 2G Combo Port Managed PoE Ethernet Switch w/Wide Temp

■ **EKI-7710E-2CP-AE** 8FE + 2G Combo Port Managed PoE Ethernet Switch

EKI-7710G-2CP **EKI-77**10G-2CPI

8G+2G Port Gigabit Managed Redundant Industrial PoE Switch



Features

- 8 x IEEE 802.3 af/at PoE Gigabit ports + 2 x Gigabit Copper/SFP combo ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- IXM function enables fast deployment
- Security: 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS
- Management: SNMP v1/v2c/v3, WEB, Telnet, Standard MIB, Private MIB
- -40 ~ 75°C wide-range operating temperature (EKI-7710G-2CPI)
- Dual 24~48 V_{DC} power input and 1 relay output



Introduction

The EKI-7710G-2CP/2CPI supports eight Gigabit Power over Ethernet (PoE) ports and two Gigabit combo ports. It can provide up to 30 watts per port to fulfill high power consumption PD (Power Device). Besides, it is embedded with Advantech IXM function, this can benefit users for fast deployment and can dramatically save engineers time and costs. The EKI-7710G series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7710G series is equipped with X-Ring Pro which can achieve ultra high speed recovery time of less than 20 ms to ensure network stability.

Specifications

n	t	e	ri	fa	C	e

I/O Port
 8 x 10/100/1000Base-T/TX RJ-45
 2 x RJ-45/SFP(mini-GBIC)Combo port
 Console port
 RS-232 (RJ45)

Power Connector
 6-pin screw Terminal Block (including relay)

Physical

Enclosure Metal Shell
 Protection Class IP 30
 Installation DIN-Rail

■ **Dimensions (W x H x D)** 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

LED Display

System LED
 PWR1, PWR2, SYS, CFG, Alarm and R.M.
 Port LED
 Link / Speed / Activity / PoE

Environment

■ **Operating Temperature** -40 ~ 75°C (-40 ~ 167°F) 7710G-2CPI -10 ~ 60°C (-40 ~ 140°F) 7710G-2CP

• Storage Temperature $-40 \sim 85^{\circ}\text{C}$

Ambient Relative Humidity
 Humidity
 10 ~ 95% (non-condensing)
 10 ~ 95% (non-condensing)

Power

Power Consumption
 12.1W @ 48V_{DC} (System)

Power Input
 24~48 V_{DC}, redundant dual power input

Power Budget 120WFault Output 1 Relay Output

Certification

Shock IEC 60068-2-27
 Freefall IEC 60068-2-32
 Vibration IEC 60068-2-6
 Traffic Control NEMA TS2*

*= Compliant

Patent http://www.advantech.com/legal/patent

L2 Features

L2 MAC Address 8KJumbo Frame 9216 Bytes

VLAN Group 256 (VLAN ID 1~4094)

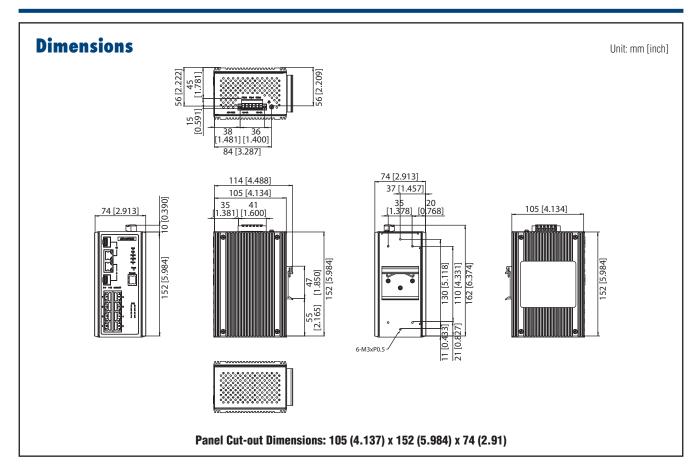
VLAN Arrange
 Port based VLAN, Q-in-Q (VLAN Stacking), GVRP

 Port Mirroring
 IP Multicast
 IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave

Storm Control Broadcast, Multicast, Unknown unicast
 Redundancy IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE

802.1w-RSTP, X-Ring Pro, with ultra high-speed

recovery time less than 20ms



QoS

Priority Queue WRR (Weighted Round Robin), SP (Strict Scheduling
 Scheduling Priority) Hybrid Priority

Class of Service
 Rate Limiting
 IEEE 802.1p Based CoS, IP TOS, DSCP based CoS
 Ingress Rate limit, Egress Rate limit

• Link Aggregation IEEE 802.3ad Dynamic Port Trunking, Static Port

Trunking

Security

Port Security Static, Dynamic

Authentication
 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption)

Management

• **DHCP** Client, Server, Option66/67/82

Access
 SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB,

Private MIB

• Security access SSH2.0, SSL

• **Software upgrade** TFTP, HTTP, Dual Image

• NTP SNTP client

Ordering Information

• EKI-7710G-2CPI-AE 8GE + 2G Combo Port Managed PoE Ethernet Switch w/Wide Temp

• **EKI-7710G-2CP-AE** 8GE + 2G Combo Port Managed PoE Ethernet Switch

EKI-9312P

Industrial-Class 12 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+



Features

- All Gigabit connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4 power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

FC CE

Introduction

The EKI-9312P Gigabit managed PoE+ Ethernet switches come standard with 8 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9312P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

The EKI-9312P are equipped with 8 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9312P are designed especially for bandwidth demanding applications, such as video and process monitoring, intelligent transportation systems, all of which benefit from a scalable backbone construction.

Specifications

h	nt	e	rf	a	C	e

■ I/O Port 8 x 10/100/1000Base-T/TX RJ-45 4 x 1000BASE-X

SFP

Console portF/W backup portRJ-45USB

• **Power Connector** 6-pin screw Terminal Block (including relay)

Physical

Enclosure Aluminum Shell
 Protection Class IP 30
 Installation DIN Rail

Dimensions (W x H x D) 86 x 165 x 125 (mm)

LED Display

System LED PWR1, PWR2, SYS, CFG, Alarm and R.M.

Port LED Link / Speed / Activity / PoE

Environment

Operating Temperature -40 ~ 75°C
 Storage Temperature -40 ~ 85°C

■ **Ambient Relative** 10 ~ 95% (non-condensing) Humidity

Humidity
 10 ~ 95% (non-condensing)

Power

■ Power Consumption ~ 21.82 Watts (System)

EKI-9316P: ~294.22 Watts EKI-9312P: ~203.42 Watts

Power Input
 48 (46 to 57 V) V_{DC} dual inputs

(> $53 V_{DC}$ for PoE+ output recommended)

Certification

EMI CE, FCC Class ASafety UL60950 C1D2

EMC EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD)

Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4; EN50121-4; EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8

(Magnetic Field) Level 4

 Shock
 IEC 60068-2-27

 Freefall
 IEC 60068-2-32

 Vibration
 IEC 60068-2-6

Patent http://www.advantech.com/legal/patent

L2 Features

L2 MAC Address 16KJumbo Frame 12KB

VLAN Group
 4K (VLAN ID 1~4094)

VLAN Arrange
 Mac based VLAN, Protocol based VLAN, IP subnet

based VLAN, Port based VLAN, Q-in-Q (VLAN

Stacking), GVRP

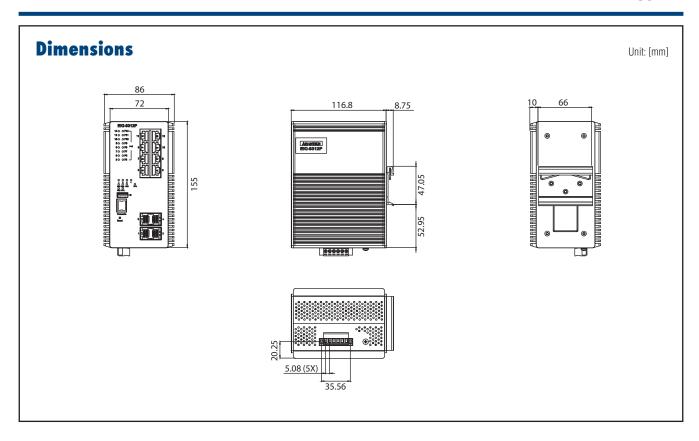
Port Mirroring
 Per port, Multi-source port

■ IP Multicast IGMP Snooping v1/v2/v3, MLD Snooping, IGMP

Immediate leave

Storm Control
 Spanning Tree
 Broadcast, Multicast, Unknown unicast
 IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE

802.1w-RSTP, X-Ring Pro



QoS

Priority Queue WRR (Weighted Round Robin), SP (Strict Priority),
 Scheduling Hybrid Priority

• Class of Service IEEE 802.1p Based CoS, IP TOS, DSCP based CoS

• Rate Limiting Ingress Rate limit, Egress Rate limit

• Link Aggregation IEEE 802.3ad Dynamic Port Trunking, Static Port

Trunking

Security

• Port Security Static, Dynamic

Authentication
 802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/

PEAP Encryption), RADUIS, TCACAS+

• ACL 1K rules

Advanced Security
 IP Source guard, ARP inspection, DHCP Snooping

Management

• **DHCP** Client, Server, Relay, Option66/67/82

Access
 SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB,

Private MIB

Security access SSH2.0, SSL

Software upgrade
 NTP
 NTP client/server

Ordering Information

■ EKI-9312-P0ID42E

Layer 2 Fastpath, $8 \times \text{GbE } 100/1000 \text{Base-T}$ with PoE+ $4 \times \text{GbE } \text{SFP}$ w/ $48 \times \text{V}_{DC}$ Redundant Power Input

Contact our sales for more pricing & ordering information.

EKI-9316P

Industrial-Class 16 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+



Features

- All Gigabit connections support dual ring protection and non-blocking traffic
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4 power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

FC. CE

Introduction

The EKI-9316P Gigabit managed PoE+ Ethernet switches come standard with 12 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9316P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

The EKI-9316P are equipped with 12 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring Pro with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9316P are designed especially for bandwidth demanding applications, such as video and process monitoring, intelligent transportation systems, all of which benefit from a scalable backbone construction.

Specifications

Interface	ı	n	t	e	rí	a	C	e
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I/O Port 12 x 10/100/1000Base-T/TX RJ-45 4 x 1000 BASE-X SFP

RJ-45 Console port - F/W backup port USB

Power Connector 6-pin screw Terminal Block (including relay)

Physical

Aluminum Shell Enclosure Protection Class IP 30 Installation DIN Rail

Dimensions (W x H x D) 86 x 165 x 125 (mm)

LED Display

System LED PWR1, PWR2, SYS, CFG, Alarm and R.M.

Port LED Link / Speed / Activity / PoE

Environment

• Operating Temperature $-40 \sim 75^{\circ}$ C Storage Temperature -40 ~ 85°C

 Ambient Relative 10 ~ 95% (non-condensing) Humidity 10 ~ 95% (non-condensing) Humidity

~ 21.82 Watts (System) EKI-9316P: ~294.22 Watts - Power Consumption

EKI-9312P: ~203.42 Watts 48 (46 to 57 V) V_{DC} dual inputs

 Power Input (> 53 V_{DC} for PoE+ output recommended)

All product specifications are subject to change without notice

Certification

CE, FCC Class A EMI Safety UL60950 C1D2

EMC EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD)

> Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic

Field) Level 4; EN50121-4

Shock IEC 60068-2-27 Freefall IEC 60068-2-32 Vibration IEC 60068-2-6

Patent http://www.advantech.com/legal/patent

L2 Features

 L2 MAC Address 16K Jumbo Frame 12KB

 VLAN Group 4K (VLAN ID 1~4094)

Mac based VLAN, Protocol based VLAN, IP subnet VLAN Arrange

based VLAN. Port based VLAN. Q-in-Q

(VLAN Stacking), GVRP

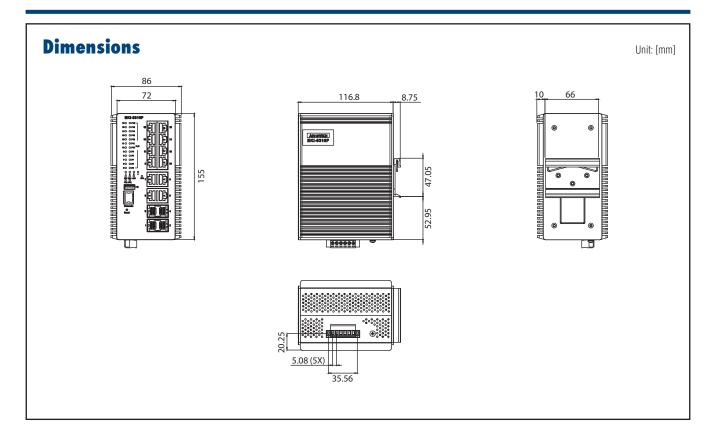
Port Mirroring Per port, Multi-source port

IP Multicast IGMP Snooping v1/v2/v3, MLD Snooping, IGMP

Immediate leave

Storm Control Broadcast, Multicast, Unknown unicast Spanning Tree IEEE 802.1D-STP, IEEE 802.1s-MSTP,

IEEE 802.1w-RSTP, X-Ring Pro



QoS

Priority Queue
 WRR (Weighted Round Robin), SP (Strict Priority),
 Scheduling Hybrid Priority

• Class of Service IEEE 802.1p Based CoS, IP TOS, DSCP based CoS

• Rate Limiting Ingress Rate limit, Egress Rate limit

 Link Aggregation
 IEEE 802.3ad Dynamic Port Trunking, Static Port Trunking

Security

Port Security Static, Dynamic

Authentication
 802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/

PEAP Encryption), RADUIS, TCACAS+

• ACL 1K rules

Advanced Security
 IP Source guard, ARP inspection, DHCP Snooping

Management

DHCP Client, Server, Relay, Option66/67/82

Access
 SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB,

Private MIB

Security access SSH2.0, SSL

Software upgrade
 NTP
 NTP client/server

Ordering Information

■ EKI-9316-P0ID42E

Layer 2 Fastpath, 12 x GbE 100/1000Base-T with PoE+ 4 x GbE SFP w/ 48VDC Redundant Power Input

Contact our sales for more pricing & ordering information.