

# EKI-7708E-4FP

# EKI-7708E-4FPI

4FE+4G SFP Port Gigabit Managed Redundant Industrial PoE Switch



## Features

- ③ 4 x IEEE 802.3 af/at PoE fast Ethernet ports + 4 x SFP ports
- ③ SFP socket for easy and flexible fiber expansion
- ③ Redundancy: X-Ring Pro (ultra-high-speed recovery time, <20 ms), RSTP/STP (802.1w/1D)
- ③ IXM function enables fast deployment
- ③ Security: 802.1x (port-based, MD5/TLS/TTLS/PEAP encryption), RADIUS
- ③ Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB, private MIB
- ③ NEMA TS2 for traffic control
- ③ EN50121-4 approval for railway trackside deployment
- ③ Wide operating temperature range of -40 ~ 75°C (EKI-7708E-4FPI)
- ③ Dual 48 V<sub>DC</sub> power input and 1 x relay output

## Introduction

The EKI-7708E-4FP/4FPI provide 4 fast Ethernet IEEE 802.3 af/at PoE ports and 4 SFP (mini-GBIC) ports. They can provide up to 30 W per port to fulfill high-power-consumption power device requirements. They are embedded with Advantech's IXM function, which can benefit users with fast deployment and can save considerably on engineering time and costs. The EKI-7708E series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, they are equipped with X-Ring Pro, which can achieve ultra-high-speed recovery times of <20 ms, thus ensuring network stability. The EKI-7708E-4FPI in particular also features a wide operating temperature range of -40 ~ 75°C and NEMA TS2 rating, making it ideal for use in traffic applications. Finally, the EKI-7708E-4FP/4FPI meet the EN50121-4 European railway standard requirements for emissions and railway platform and trackside deployment.

## Specifications

### Interface

- ③ I/O Port 4 x 10/100BASE-T/TX RJ-45  
4 x SFP (mini-GBIC) port
- ③ Standards IEEE 802.3 for 10BASE-T  
IEEE 802.3u for 100BaseT(X)/FX  
IEEE 802.z for 1000BaseX  
IEEE 8023x for Flow Control
- ③ Console port RS-232 (RJ45)
- ③ Power Connector 6-pin screw  
Terminal Block (including relay)

### Physical

- ③ Enclosure Metal Shell
- ③ Protection Class IP 30
- ③ Installation DIN-Rail
- ③ Dimensions (W x H x D) 74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

### LED Display

- ③ System LED PWR1, PWR2,  
SYS, Alarm and R.M.
- ③ Port LED Link / Speed /  
Activity

### Environment

- ③ Operating Temperature -40 ~  
75°C (-40 ~ 167°F) (7708E-4FPI)
- ③ -10 ~ 60°C (-40 ~ 140°F) (7708E-4FP)
- ③ Storage Temperature -40 ~  
85°C
- ③ Ambient Relative Humidity 10 ~  
95% (non-condensing)
- ③ Humidity 10 ~ 95% (non-  
condensing)

### Power

- ③ Power Consumption 12.1W @ 48V<sub>DC</sub>  
(System)
- ③ Power Input 48 V<sub>DC</sub> (46 to 57 V<sub>DC</sub>),  
53-57 V<sub>DC</sub> is recommended for 802.3at,  
redundant dual power input
- ③ Power Budget 120W
- ③ Fault Output 1 Relay Output

### Certification

- ③ EMI CE, FCC Class A
- ③ 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  
EN 61000-6-2  
EN 61000-6-4  
EN 50121-4
- ③ Shock IEC 60068-2-27
- ③ Freefall IEC 60068-2-32
- ③ Vibration IEC 60068-2-6
- ③ Traffic control NEMA TS2

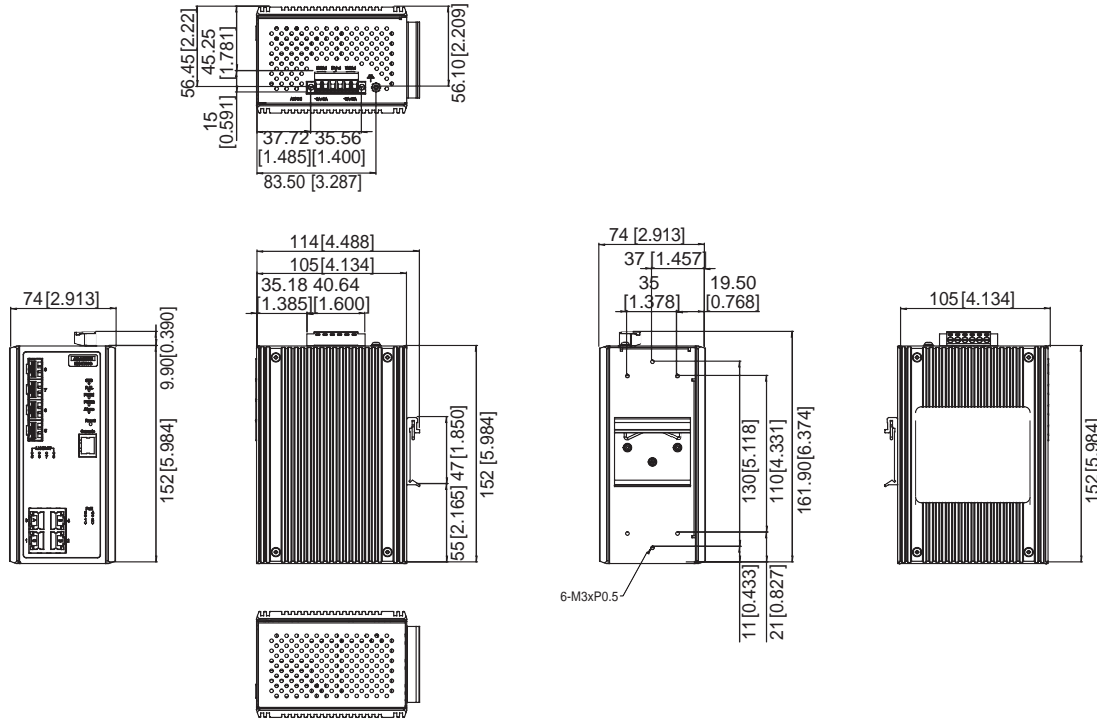
\*= Compliant

- ③ Patent  
<http://www.advantech.com/legal/patent>



## Dimensions

Unit: mm[inch]



Panel Cut-out Dimensions: 105 x 152 x 74 (4.134" x 5.98" x 2.913")

### L2 Features

- ③ **L2 MAC Address** 8K
- ③ **Jumbo Frame** 9216 Bytes
- ③ **VLAN Group** 256 (VLAN ID 1 ~ 4094)
- ③ **VLAN Arrange** Port based VLAN, Q-in-Q (VLAN Stacking), GVRP
- ③ **Port Mirroring** Per port, Multi-source port,
- ③ **IP Multicast** IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
- ③ **Storm Control** Broadcast, Multicast, Unknown unicast
- ③ **Redundancy** IEEE 802.1D-STP, IEEE 802.1w-RSTP, X-Ring Pro, with ultra high-speed recovery time less than 20ms

### QoS

- ③ **Priority Queue** WRR (Weighted Round Robin), SP (Strict Scheduling)
- ③ **Scheduling** Priority) Hybrid Priority
- ③ **Class of Service** IEEE 802.1p Based CoS, IP TOS, DSCP based CoS
- ③ **Rate Limiting** Ingress Rate limit, Egress Rate limit
- ③ **Link Aggregation** IEEE 802.3ad Dynamic Port Trunking, Static Port Trunking

### Security

- ③ **Port Security** Static, Dynamic IP Source Guard, ARP Spoofing Prevention, Access Control List, DHCP Snooping
- ③ **Authentication** 802.1x (Port-Based, MD5/TLS/TLS/PEAP)

### Management

- ③ **DHCP** Client, Server, Option66/67/82
- ③ **Access** SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
- ③ **Security access** SSH2.0, SSL
- ③ **Software upgrade** TFTP, HTTP, Dual Image
- ③ **NTP/SNTP client**

### Ordering Information

- ③ **EKI-7708E-4FPI-AE** 4FE + 4G SFP Port Managed PoE Ethernet Switch w/ Wide Temp
- ③ **EKI-7708E-4FP-AE** 4FE + 4G SFP Port Managed PoE Ethernet Switch

Encryption), TACACS+

Note: For SFP copper type, only 1000Mbps supported.

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