

# EKI-7712E-4FP EKI-7712E-4FPI

## 8FE+4SFP Port Gigabit Managed Redundant Industrial PoE Switch



### Features

- 8 x IEEE 802.3 af/at PoE Fast Ethernet ports + 4 SFP 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
- NEMA TS2 for Traffic Control
- EN50121-4 approval for Railway trackside deployment
- -40 ~ 75 °C wide-range operating temperature (EKI-7712E-4FPI)
- Dual 48 V<sub>DC</sub> power input and 1 relay output
- Support Security Pack to against internal and external cyber threats

### Introduction

EKI-7712E-4FP/4FPI supports 8 Fast Ethernet IEEE 802.3 af/at PoE ports and 4 SFP (mini-GBIC) ports. They can provide up to 30 watts per port to fulfill high power consumption PD (Power Device) requirements. They are embedded with Advantech's IXM function, which can benefit users for fast deployment and can dramatically save engineers time and cost. The EKI-7712E series also supports NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7712E series is equipped with X-Ring Pro which can achieve ultra high speed recovery times of less than 20 ms to ensure network stability. The switch also features a wide -40° to 75 °C operating temperature (EKI-7712E-4FPI) and NEMA TS2 rating, making the switch an ideal solution for use in traffic applications. EKI-7712E-4FP/4FPI has successfully passed the EN50121-4 European railway standard requirements for emissions and railway platform and trackside deployment.

### Specifications

#### Interface

- **I/O Port** 8 x 10/100Base-T/TX RJ-45  
4 x SFP (mini-GBIC) 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

#### Environment

- **Operating Temperature** -40 ~ 75 °C (-40 ~ 167 °F) (7712E-4FPI)  
-10 ~ 60 °C (-40 ~ 140 °F) (7712E-4FP)
- **Storage Temperature** -40 ~ 85 °C
- **Ambient Relative Humidity** 10 ~ 95% (non-condensing)
- **Humidity** 10 ~ 95% (non-condensing)

#### Power

- **Power Consumption** 12.1W @ 48V<sub>DC</sub> (System)
- **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
- **Power Budget** 240W
- **Fault Output** 1 Relay Output

#### Certification

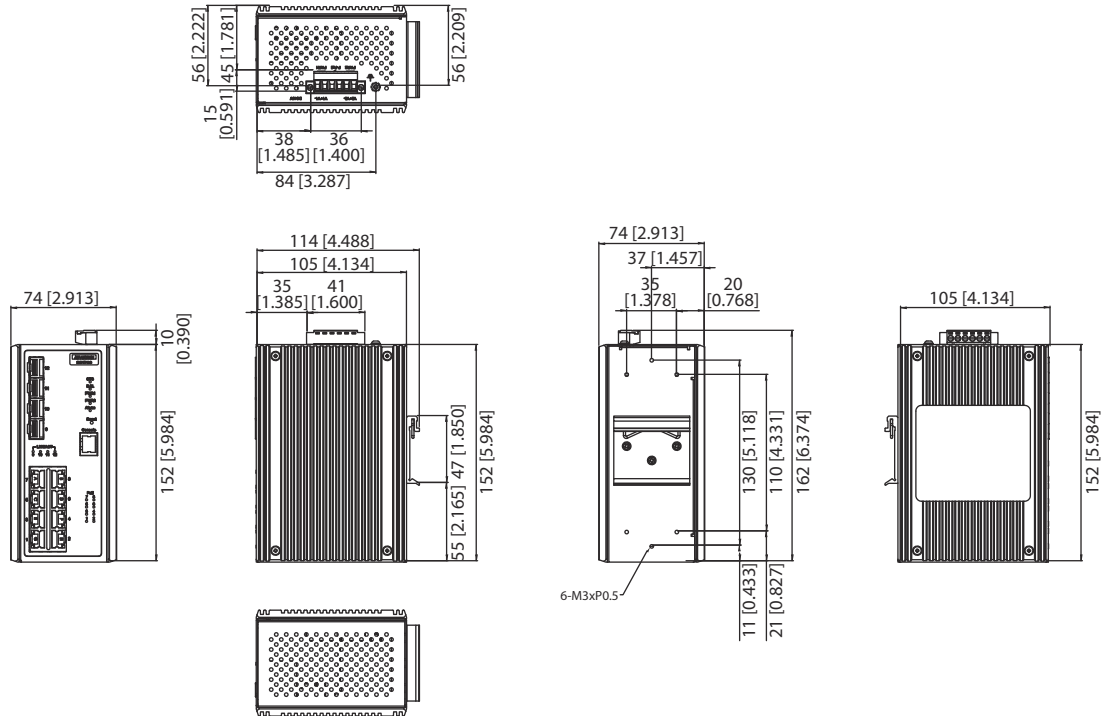
- **EMI** CE, FCC Class A
- **Safety** UL61010-2-201  
IEC60950\*
- **EMC** EN 61000-4-2  
EN 61000-4-3  
EN 61000-4-4  
EN 61000-4-5  
EN 61000-4-6  
EN 61000-4-8  
EN50121-4
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6
- **Traffic control** NEMA TS2
- \*= Compliant
- **Patent** <http://www.advantech.com/legal/patent>

#### L2 Features

- **L2 MAC Address** 8K
- **Jumbo 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

## Dimensions

Unit: mm [inch]



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

### QoS

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

### Security

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

### 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-7712E-4FPI-AE** 8FE + 4SFP Port Managed PoE Ethernet Switch w/Wide Temp
- **EKI-7712E-4FP-AE** 8FE + 4SFP Port Managed PoE Ethernet Switch

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