EKI-7708E-4FP
EKI-7708E-4FPI

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

Features

- 4 x IEEE 802.3 af/at PoE fast Ethernet ports + 4 x 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
- Wide operating temperature range of -40 ~ 75°C (EKI-7708E-4FPI)
- Dual 48 V_{DC} power input and 1 x relay output

IPv6 5 Year Warranty C E FCC RoHS COMPLIANT 2002/95/EC

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

- **I/O Port** — 4 x 10/100BASE-T/TX RJ-45
  4 x SFP (mini-GBIC) port
- **Standards** — IEEE 802,3 for 10BASET
  IEEE 802.3u for 100BaseT(X)/FX
  IEEE 802.z for 1000BaseX
  IEEE 8023x for Flow Control
- **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) (7708E-4FPI)
  -10 ~ 60°C (-40 ~ 140°F) (7708E-4FP)
- **Storage Temperature** — -40 ~ 85°C
- **Ambient Relative Humidity** — 10 ~ 95% (non-condensing)
- **Humidity** — 10 ~ 95% (non-condensing)

Power

- **Power Consumption** — 12.1W @ 48V_{DC} (System)
- **Power Input** — 48 V_{DC} (46 to 57 V_{DC}),
  53 -57 V_{DC} is recommended for 802.3at,
  redundant dual power input
- **Power Budget** — 120W
- **Fault Output** — 1 Relay Output

Certification

- **EMI** — CE, FCC Class A
- **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
  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

Dimensions

Unit: mm [inch]
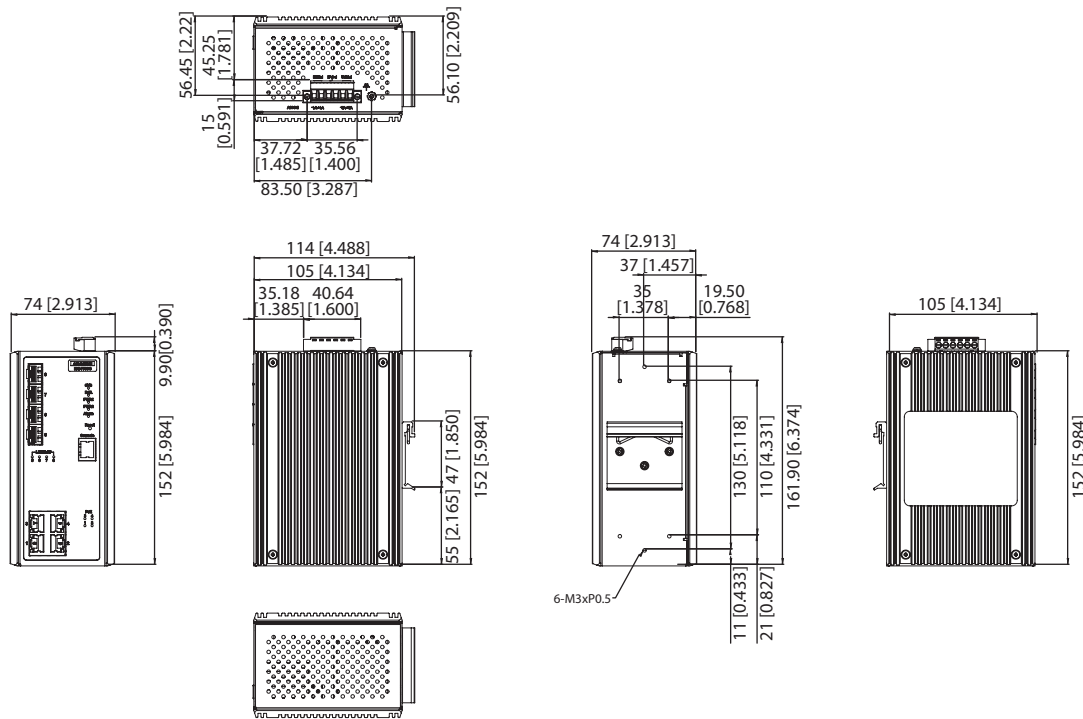
Panel Cut-out Dimensions: 105 x 152 x 74 (4.134" x 5.98" x 2.913")

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

QoS

- **Priority Queue Scheduling** — WRR (Weighted Round Robin), SP (Strict Scheduling Priority) 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 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-7708E-4FPI-AE** — 4FE + 4G SFP Port Managed PoE Ethernet Switch w/ Wide Temp
- **EKI-7708E-4FP-AE** — 4FE + 4G SFP Port Managed PoE Ethernet Switch

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