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 · CE · 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)
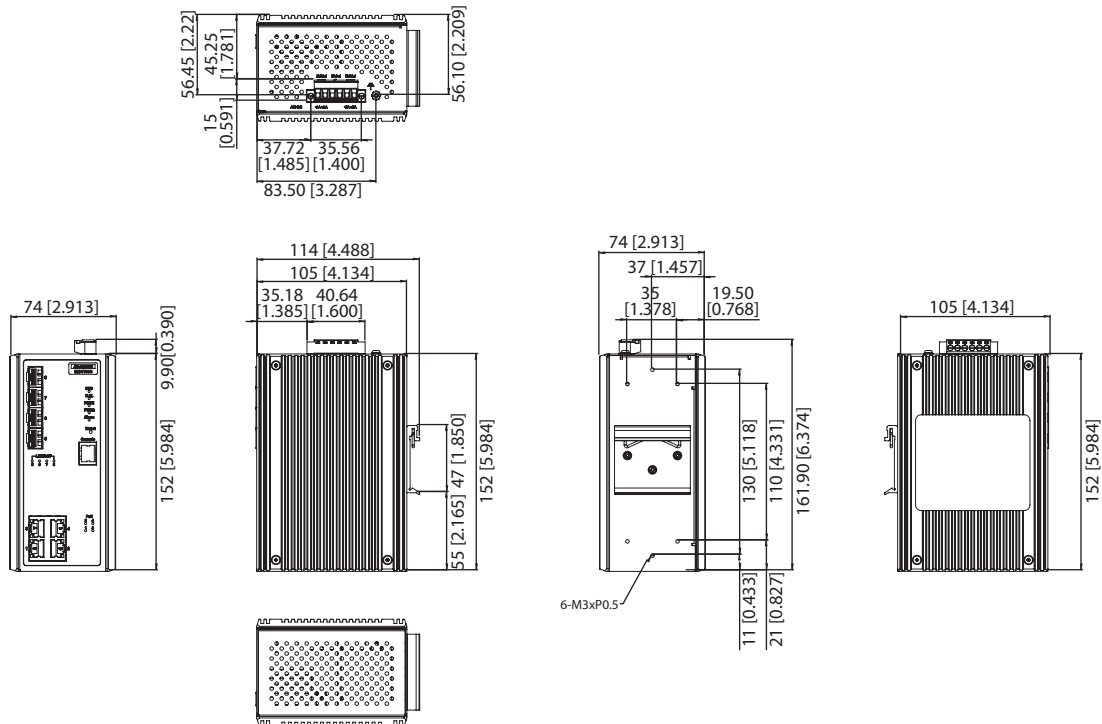- **Humidity** 10 ~ 95% (non-condensing)

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

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All product specifications are subject to change without notice.   Last updated: 28-Sep-2020

Dimensions

Unit: mm [inch]

56.45 [2.22]
45.25 [1.781]
56.10 [2.209]
15 [0.591]
37.72 [1.485] 35.56 [1.400]
83.50 [3.287]

114 [4.488]
105 [4.134]
35.18 [1.385] 40.64 [1.600]
74 [2.913]
9.90 [0.390]
152 [5.984]
55 [2.165] 47 [1.850]
152 [5.984]

74 [2.913]
37 [1.457]
35 [1.378] 19.50 [0.768]
130 [5.118]
110 [4.331]
161.90 [6.374]
11 [0.433]
21 [0.827]
6-M3xP0.5

105 [4.134]
152 [5.984]

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.