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_{DC} 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_{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	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]
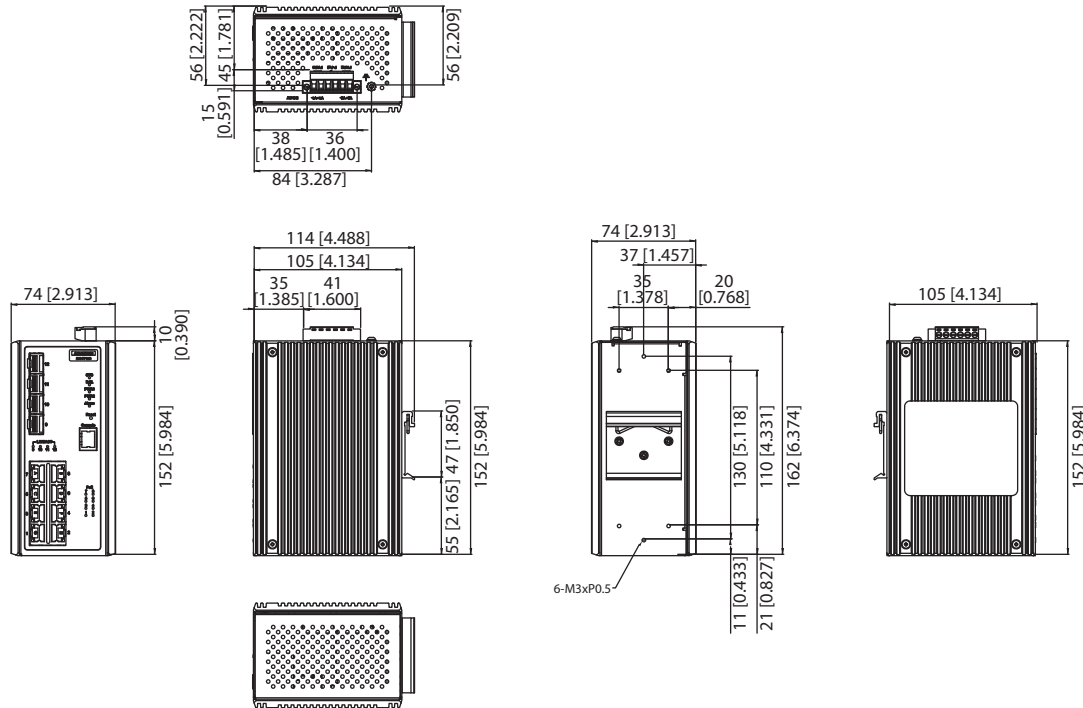
Panel Cut-out Dimensions: 105 x 152 x 74 (4.134" x 5.98" x 2.913")

QoS

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