EKI-7712G-4FMPI

6G PoE + 2G 90W PoE + 4G SFP Ports Gigabit Managed Redundant Industrial PoE Switch

Features

- Support 2 IEEE 802.3bt class 8 90W and 6 IEEE 802.3af/at PoE ports
- 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 TS-2 for traffic control
- EN50121-4 approval for railway trackside deployment
- -40 ~ 70°C wide-range operating temperature
- Dual 53 ~ 57 V_{DC} power inputs and 1 x relay output

Introduction

The EKI-7712G-4FMPI is a next generation PoE switch which supports IEEE 802.3bt Class 8 90W PoE for high-powered application. Combined with 6 x IEEE 802.3af/at PoE Gigabit ports, 2 x IEEE 802.3bt PoE Gigabit ports, and 4 x SFP ports, EKI-7712G-4FMPI provides multiple usages for different scenarios. The EKI-7712G-4FMPI is embedded with Advantech's IXM function, which can benefit users with fast deployment and can save considerably engineering time and costs. It also supports NMS to help IT managers with networking maintenance and failure prevention. It is also equipped with X-Ring Pro, which can achieve ultra-high-speed recovery times of <20 ms to ensure network stability.

Specifications

Communication

- **Standard**: IEEE 802.3, 802.3u, 802.3x, 802.3z , 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
- **LAN**: 10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX

Interface

- **I/O Port**: 8 x 10/100/1000BASE-T/TX RJ-45
  4 x SFP (mini-GBIC) port
- **PoE**: Port 1 ~ Port 6: IEEE 802.3at/af
  (Up to 30W per port)
  Port 7 ~ Port 8: IEEE 802.3bt
  (Up to 90W per 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, Wall-mount kit
- **Dimensions (W x H x D)**: 97 x 152 x 105 mm (3.819" x 5.984" x 4.134")

LED Display

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

Environment

- **Operating Temperature**: -40 ~ 70°C (-40 ~ 158°F)
- **Storage Temperature**: -40 ~ 85°C (-40 ~ 185°F)
- **Ambient Relative Humidity**: 10 ~ 95% (non-condensing)
- **Humidity**: 10 ~ 95% (non-condensing)

Power

- **Power Consumption**: 12W @ 55V_{DC} (System)
- **Power Input**: 53 ~ 57V_{DC} for 802.3at/af
  55 ~ 57V_{DC} for 802.3bt
- **Power Budget**: 370W
- **Fault Output**: 1 Relay Output

Certification

- **Safety**: UL 62368-1
- **EMI**: CE, FCC Class A
- **EMS**: EN 61000-4-2
  EN 61000-4-3
  EN 61000-4-4
  EN 61000-4-5
  EN 61000-4-6
  EN 61000-4-8
- **Shock**: IEC 60068-2-27
- **Freefall**: IEC 60068-2-32
- **Vibration**: IEC 60068-2-6
- **Traffic control**: NEMA TS-2
- **Railway Track Side**: EN50121-4
- **Patent**: http://www.advantech.com/legal/patent

Dimensions

Unit: mm [inch]
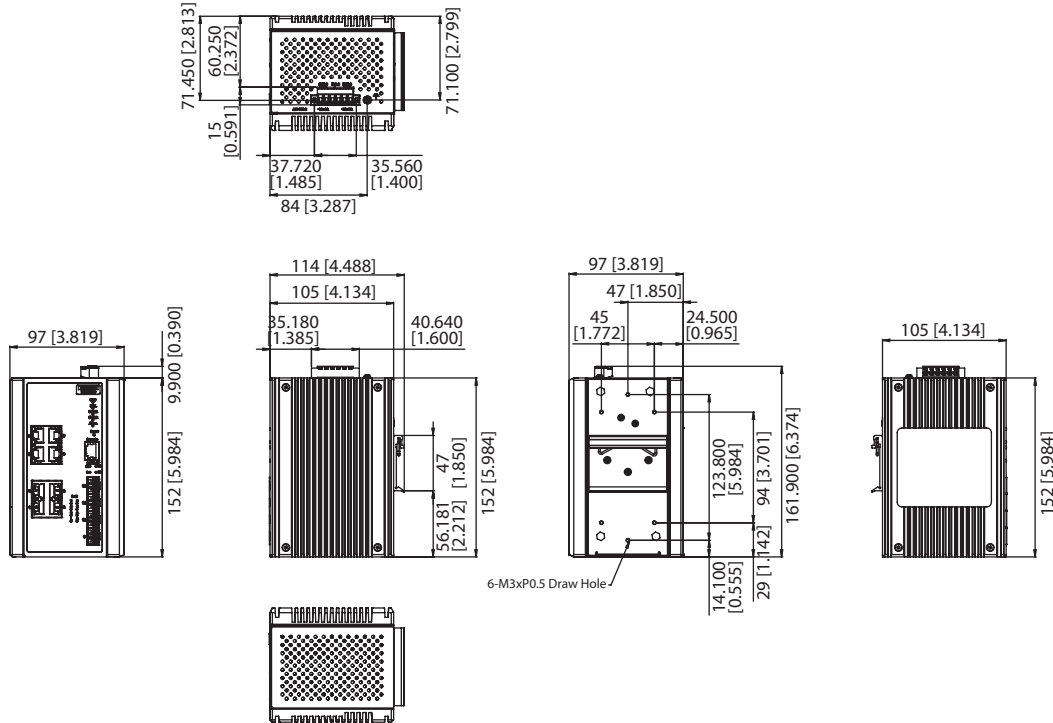
Panel Cut-out Dimensions (W x H x D): 97 x 152 x 105 mm (3.819 x 5.984 x 4.134 inch)

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-7712G-4FMPI-AE**	6G PoE + 2G 90W PoE + 4G SFP PoE Managed Switch w/Wide Temp

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