

# EKI-7712G-4FMPI

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



### Features

- 8 x Gigabit Ethernet ports + 4 x SFP ports
- 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 for fast deployment
- Security Pack with 802.1X, ACL, RADIUS, TACACS+, MAB Authentication, SNMPv3, HTTPS, SSH, and SFTP
- Management: SNMP v1/v2c/v3, WEB, Telnet, standard MIB, private MIB
- Supports NMS for easy and visualized to monitor and manage network remotely
- Dual 53 ~ 57 V<sub>DC</sub> 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

#### Interfaces / Communications

- I/O Port** 8 x 10/100/1000BASE-T/TX RJ-45  
4 x SFP (mini-GBIC) port  
Auto-Negotiation, Full/Half Duplex Mode  
Auto MDI/MDI-X Connection
- Standards** IEEE 802.3 for 10BaseT  
IEEE 802.3u for 100BaseT(X)/FX  
IEEE 802.3ab 1000BaseT(X)  
IEEE 802.3z for 1000BaseSX/LX/LHX/ZX  
IEEE 802.3x for Flow Control
- 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
- Dimensions (W x H x D)** 97 x 152 x 105 mm (3.819" x 5.984" x 4.134")

#### LED Indicators

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

#### Environment

- Operating Temperature** -40 ~ 70°C (-40 ~ 158°F)
- Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- Ambient Relative Humidity** 5 ~ 95% (non-condensing)
- Overload Current Protection** Present
- Reverse Polarity Protection** Present
- MTBF** 992,320 hours

#### Power

- Power Consumption** 12W @ 55V<sub>DC</sub> (System)
- Power Input** 53 ~ 57V<sub>DC</sub> for 802.3at/af  
55 ~ 57V<sub>DC</sub> for 802.3bt  
Redundant dual power input
- Power Budget** 370W
- Fault Output** 1 Relay Output

#### Certification

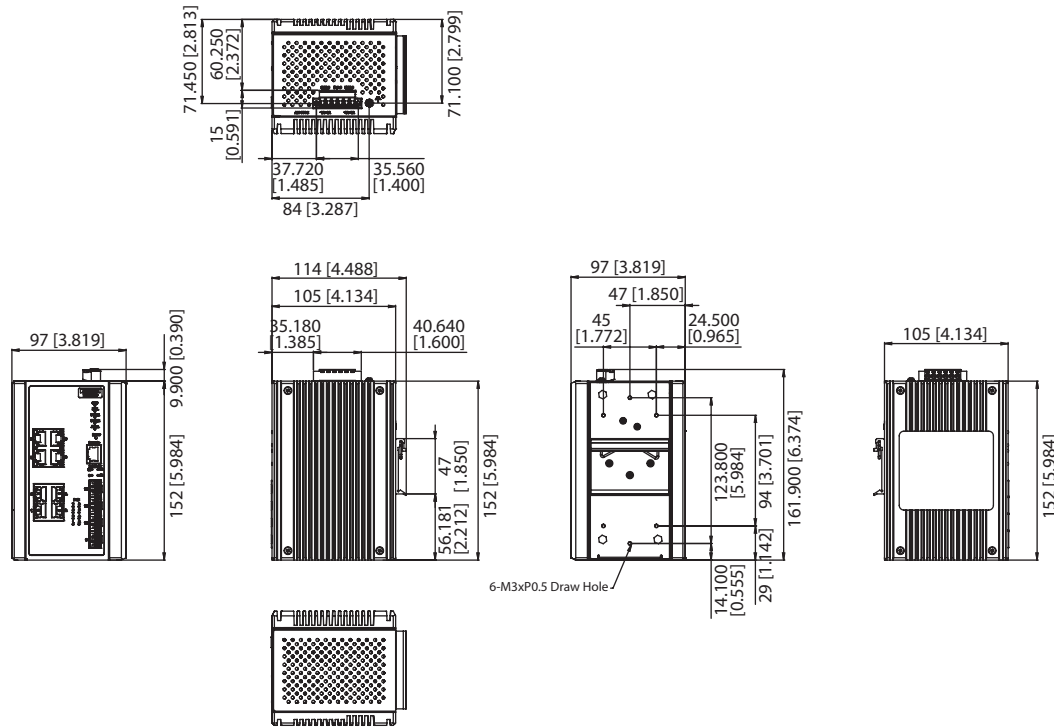
- Safety** UL 62368-1
- EMI** CE, CISPR 32, FCC Part 15B Class A
- EMS** EN 61000-4-2  
EN 61000-4-3  
EN 61000-4-4  
EN 61000-4-5  
EN 61000-4-6  
EN 61000-4-8  
EN 61000-6-2  
EN 61000-6-4
- EMC** EN 61000-6-2  
EN 61000-6-4
- Shock** IEC 60068-2-27
- Freefall** IEC 60068-2-32
- Vibration** IEC 60068-2-6
- Traffic control** NEMA TS-2
- Railway Trackside** EN 50121-4

#### Switch Properties

- Switching Capacity** 24Gbps
- Transmission Rate** 17.8Mpps
- MAC Table Size** 8K
- Jumbo Frame** 1,0240 Bytes
- Packet Buffer Size** 4.1Mb
- Max. IGMP Group** 256
- Max. VLAN Group** 256 (VLAN ID 1 ~ 4094)

## Dimensions

Unit: mm [inch]



**Panel Cut-out Dimensions: 105 (4.137) x 152 (5.984) x 74 (2.91)**

## L2 Features

- |                              |   |
|------------------------------|---|
| ▪ <b>VLAN Arrange</b>        | 802.1Q Tag-based VLAN, 802.1ad QinQ VLAN Stacking   |
| ▪ <b>Port Mirroring</b>      | 1 to 1, N to 1<br>Max. Mirror Session: 4  |
| ▪ <b>RSPAN</b>               | Remote Switched Port Analysis   |
| ▪ <b>GARP</b>                | GVRP, GMRP  |
| ▪ <b>IP Multicast</b>        | IGMP Snooping v1/v2/v3, MLD<br>Snooping, IGMP Immediate leave   |
| ▪ <b>Storm Control</b>       | Broadcast, Multicast, Unknown unicast   |
| ▪ <b>LLDP</b>                | 802.1ab LLDP, LLDP-MED  |
| ▪ <b>Industrial Protocol</b> | Modbus/TCP  |
| ▪ <b>Redundancy</b>          | IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE<br>802.1w-RSTP, X-Ring Pro, with ultra high-speed<br>recovery time less than 20ms, ERPS(G.8032) |

## QoS

- **Priority Queue Scheduling** WRR (Weighted Round Robin), SP (Strict Scheduling Priority) Hybrid Priority, Max. Priority Queues: 8
- **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

- |                         |  |
|-------------------------|--|
| ▪ <b>Port Security</b>  | Static/Dynamic MAC, Max. Learning Limit, MAC Violation Notice      |
| ▪ <b>802.1X</b>         | Port-based/MAC-based Authentication (MD5/PEAP/TLS/TTLS Encryption) |
| ▪ <b>MAB</b>            | MAC Authentication Bypass  |
| ▪ <b>Authentication</b> | RADIUS, TACAS+   |
| ▪ <b>IP Security</b>    | IP Source Guard, DHCP Snooping, ARP Spoofing Prevention            |
| ▪ <b>ACL</b>            | Access Control List (IP-ACL, MAC-ACL)<br>Max. ACL Entries: 128     |

## Management

- |                           |   |
|---------------------------|---|
| ▪ <b>DHCP</b>             | Client, Server, Option66/67/82, DHCP Relay  |
| ▪ <b>Access</b>           | SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB-II, Private MIB, Ethernet-Like MIB, RMON MIB (Group 1, 2, 3, 9) |
| ▪ <b>Security access</b>  | SSH2.0, SSL   |
| ▪ <b>Software upgrade</b> | TFTP, SFTP, HTTP, Dual Image  |
| ▪ <b>NTP</b>              | NTP 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.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Advantech:](#)

[EKI-7712G-4FMPI-AE](#)