

# EKI-7712G-4FMPI

## 6G PoE + 2G Mega PoE + 4G SFP Port Gigabit Managed Redundant Industrial Mega PoE Switch

### Preliminary



### Features

- Support IEEE 802.3bt Class 8 90W Mega PoE, 6 x IEEE 802.3 af/at PoE Gigabit ports + 2 x IEEE 802.3 bt PoE Gigabit 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 ~ 70°C wide-range operating temperature
- Dual 48 V<sub>DC</sub> power input 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 802.3 af/at PoE Gigabit ports, 2 x 802.3 bt PoE Gigabit ports, and 4 x SFP ports, EKI-7712G-4FMPI provides multiple usage for different scenario. 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. The series are also equipped with X-Ring Pro, which can achieve ultra-high-speed recovery times of <20 ms to ensure network stability.

### Specifications

#### Interface

- I/O Port** 8 x 10/100/1000BASE-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)** 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
- Ambient Relative Humidity** 10 ~ 95% (non-condensing)
- Humidity** 10 ~ 95% (non-condensing)

#### Power

- Power Consumption** 20W @ 48V<sub>DC</sub> (System)
- Power Input** 48 V<sub>DC</sub> (46 to 57 V<sub>DC</sub>),  
53 ~ 57 V<sub>DC</sub> is recommended for 802.3at and 802.3bt, redundant dual power input
- Power Budget** 370W
- Fault Output** 1 Relay Output

#### Certification

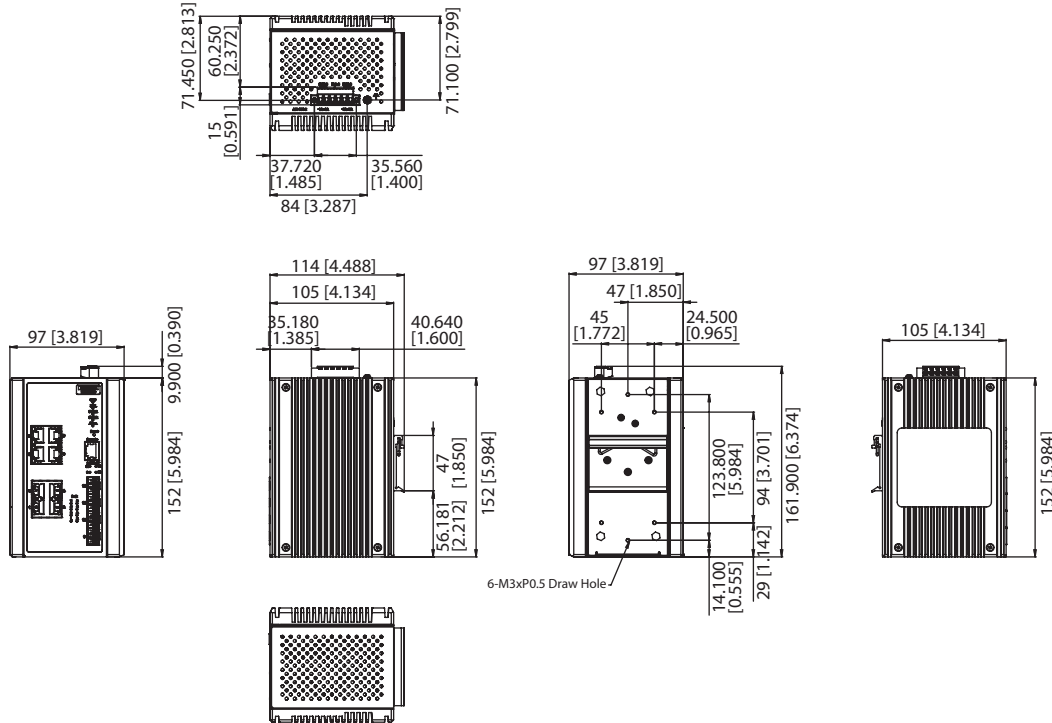
- Safety** UL 61010
- EMI** CE, FCC Class A
- EMS** EN 61000-4-2  
EN 61000-4-3  
EN 61000-4-4  
EN 61000-4-5  
EN 61000-4-6  
EN 61000-4-8
- Shock** IEC 60068-2-27
- Freefall** IEC 60068-2-32
- Vibration** IEC 60068-2-6
- Traffic control** NEMA TS2
- Railway Track Side** EN 50121-4
- Patent** <http://www.advantech.com/legal/patent>

#### 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 97 (4.134" x 5.98" x 3.819")**

## 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 Mega PoE + 4G SFP PoE Ethernet Switch w/Wide Temp

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