



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



# EKI-7708G-4F

# EKI-7708G-4FI

## 4GE+4G SFP Port Gigabit Managed Redundant Industrial Switch



### Features

- 4 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 ~ 75°C wide-range operating temperature (EKI-7708G-4FI)
- Dual 12 ~ 48 V<sub>DC</sub> power input and 1 relay output

### Introduction

EKI-7708G-4F/4FI provides users with abundant ports to connect to many devices with 4 Gigabit ports and 4 SFP (mini-GBIC) ports. It is embedded with Advantech's IXM function, which can benefit users for fast deployment and can dramatically save engineers time and cost. The EKI-7708G series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, the EKI-7708G series is equipped with X-Ring Pro which can achieve ultra high speed recovery time of less than 20 ms to ensure network stability. The switch also features a wide -40° to 75°C operating temperature (EKI-7708G-4FI) and NEMA TS2 rating, making the switch an ideal solution for use in traffic applications. EKI-7708G-4F/4FI has successfully passed the EN50121-4 European railway standard requirement for emissions and railway platform and trackside deployment.

### Specifications

#### Interface

- **I/O Port** 4 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)** 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) (7708G-4FI)  
-10 ~ 60°C (-40 ~ 140°F) (7708G-4F)
- **Storage Temperature** -40 ~ 85°C
- **Ambient Relative Humidity** 10 ~ 95% (non-condensing)
- **Humidity** 10 ~ 95% (non-condensing)

#### Power

- **Power Consumption** 12.1W @ 48V<sub>DC</sub> (System)
- **Power Input** 12 ~ 48 V<sub>DC</sub>, redundant dual power input
- **Fault Output** 1 Relay Output

#### Certification

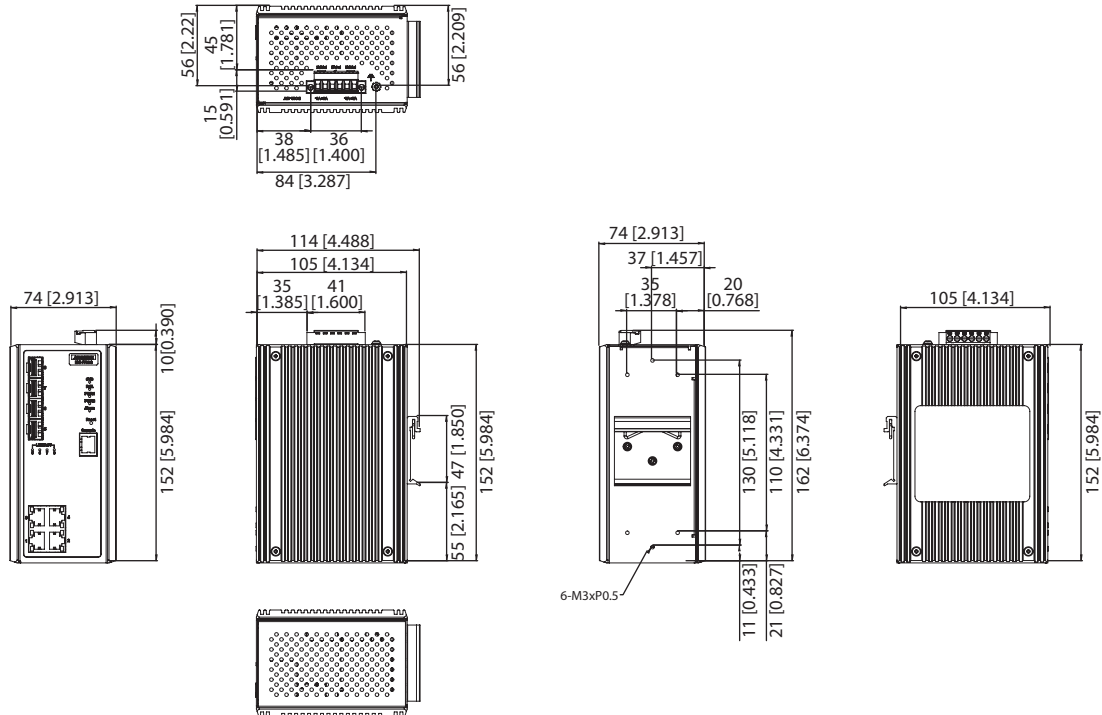
- **EMI** CE, FCC Class A
  - **EMC** EN 61000-4-2  
EN 61000-4-3  
EN 61000-4-4  
EN 61000-4-5  
EN 61000-4-6  
EN 61000-4-8  
EN 50121-4\*
  - **Shock** IEC 60068-2-27
  - **Freefall** IEC 60068-2-32
  - **Vibration** IEC 60068-2-6
  - **Traffic control** NEMA TS2\*
- \*= Compliant

#### 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 (4.137) x 152 (5.984) x 74 (2.91)**

### 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
- **Authentication** 802.1x (Port-Based, MD5/TLS/TTLS/PEAP Encryption)

### 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-7708G-4FI-AE** 4GE + 4G SFP Port Managed Ethernet Switch w/Wide Temp
- **EKI-7708G-4F-AE** 4GE + 4G SFP Port Managed Ethernet Switch