EKI-7758F

4G+4 SFP Gigabit Managed Redundant Industrial Ethernet Switch

Features

- All Gigabit Ethernet ports for 4 Copper and 4 SFP
- SFP sockets for easy and flexible fiber expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL
- Diagnostic: Port statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

The EKI-7758F supports eight Gigabit ports with four Ethernet and four SFP. To create reliability in your network, the EKI-7758F comes equipped with a proprietary redundant network protocol -- X-Ring that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7758F also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications

- **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** 100Base-T (X), 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet : Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
  SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Gigabit Copper:10/100/1000 Mbps, Auto-Negotiation
  SFP: Up to 1000 Mbps

Interface

- **Connectors** 4 x RJ45 (Ethernet)
  4 x SFP (mini-GBIC) ports
  6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR, R.M., PWR1, PWR2, P-Fail
  Gigabit Copper: Link/Activity, Speed
  SFP: Link/Activity
- **Console** RS-232 (RJ45)

Network Management

- **Configuration** Web browser, Telnet, Serial consloe, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL

Traffic Control

- **Traffic Control** IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/DSCP priority queuing, IEEE 802.3x flow control
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 17 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

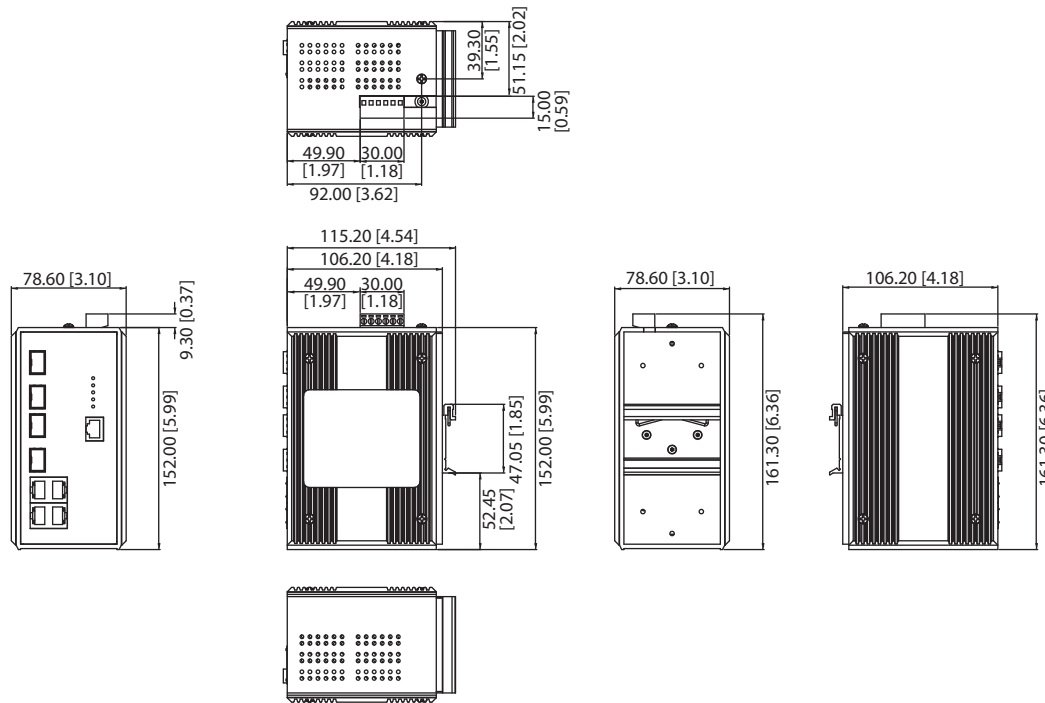- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 289,777 hours

Dimensions

Unit: [mm]

39.30 [1.55]
51.15 [2.02]
15.00 [0.59]
49.90 [1.97]
30.00 [1.18]
92.00 [3.62]

78.60 [3.10]
9.30 [0.37]
152.00 [5.99]

115.20 [4.54]
106.20 [4.18]
49.90 [1.97]
30.00 [1.18]
47.05 [1.85]
52.45 [2.07]
152.00 [5.99]

78.60 [3.10]
161.30 [6.36]

106.20 [4.18]
161.30 [6.36]

Panel Cut-out Dimensions: 115.2 x 152 x 78.6 mm (4.54" x 5.99" x 3.1")

Certification

- **Safety**   UL 60950-1, CAN/CSA-C22.2 No.60950
                   Class I, Division 2
- **EMI**   FCC Part 15 Subpart B Class A, EN 55022 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

Ordering Information

- **EKI-7758F**   4G+4 SFP Managed Gigabit Ethernet Switch