EKI-7720E-4F
EKI-7720E-4FI

16FE+4G SFP Port Managed Redundant Industrial Switch

Features

- 16 x Fast Ethernet ports + 4 x SFP 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 12 ~ 48 V_{DC} power input and 1 x relay output

Introduction

The EKI-7720E-4F and EKI-7720E-4FI provide users with abundant port options to connect to a range of different device types with 16 fast Ethernet ports and 4 SFP (mini-GBIC) ports. These switches are embedded with Advantech's IXM function, which can benefit users with fast deployment and can dramatically save on engineering time and costs. The series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, these switches are equipped with X-Ring Pro, which can achieve ultra-high-speed recovery times of <20 ms, thus ensuring network stability. The EKI-7720E-4FI also features a wide operating temperature of -40 ~ 75°C.

Specifications

Interfaces / Communications

I/O Port	16 x 10/100BASE-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 802.3z for 1000BaseSX/LX/LHX/ZX IEEE 802.3x for Flow Control
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)	74 x 152 x 105 mm (2.91" x 5.98" x 4.13")

LED Indicators

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

Environment

Operating Temperature	-40 ~ 75°C (-40 ~ 167°F) (EKI-7720E-4FI) -10 ~ 60°C (-40 ~ 140°F) (EKI-7720E-4F)
Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
Ambient Relative Humidity	5 ~ 95% (non-condensing)
Overload Current Protection	Present
Reverse Polarity Protection	Present
MTBF	1,469,341 hours

Power

Power Consumption	14.5Watts@48V_{DC}, 14Watts@12V_{DC}
Power Input	12 ~ 48 V_{DC}, redundant dual power input
Fault Output	1 Relay Output

Certification

Safety	UL 61010-2-201, EN LVD 62368
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
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

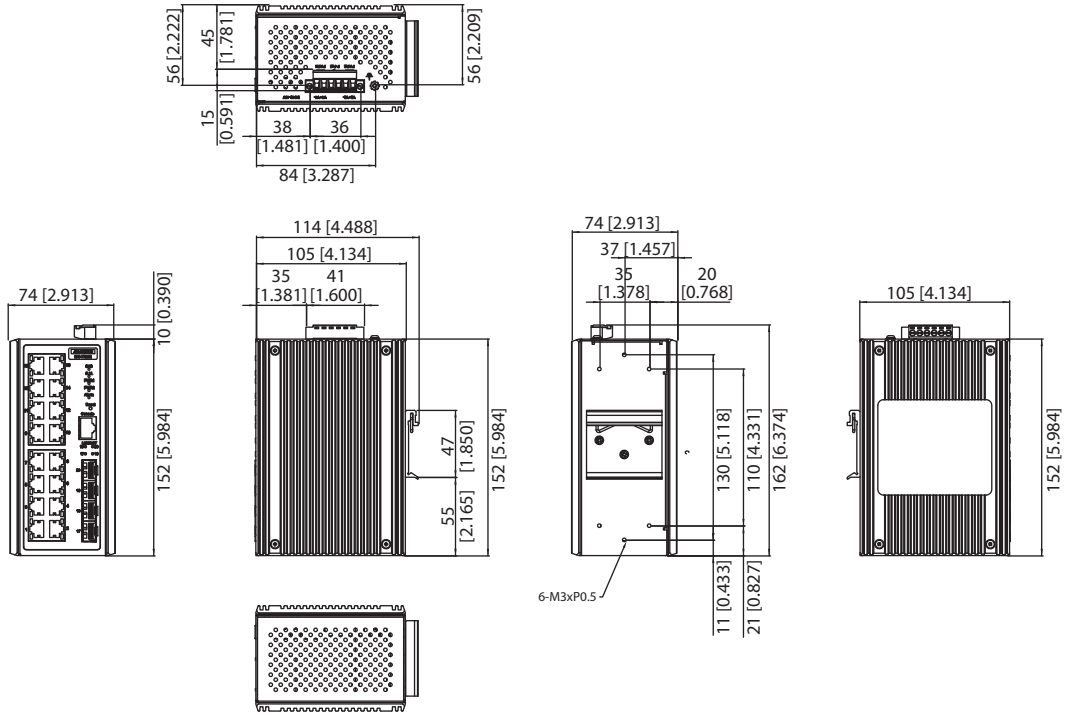
Switch Properties

Switching Capacity	11.2Gbps
Transmission Rate	8.33Mpps
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)

All product specifications are subject to change without notice.
Last updated: 22-Jun-2021

Dimensions

Unit: mm [inch]



Panel Cut-out Dimensions: 84 (3.31) x 120 (4.72) x 43 (1.69)

L2 Features

- **VLAN Arrange** 802.1Q Tag-based VLAN, 802.1ad QinQ VLAN Stacking
- **Port Mirroring** 1 to 1, N to 1
  Max. Mirror Session: 4
- **RSPAN** Remote Switched Port Analysis
- **GARP** GVRP, GMRP
- **IP Multicast** IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
- **Storm Control** Broadcast, Multicast, Unknown unicast
- **LLDP** 802.1ab LLDP, LLDP-MED
- **Industrial Protocol** Modbus/TCP
- **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, 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

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

Management

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

Ordering Information

- **EKI-7720E-4FI-AE** 16FE + 4SFP Port Managed Ethernet Switch w/Wide Temp
- **EKI-7720E-4F-AE** 16FE + 4SFP Port Managed Ethernet Switch

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