

EKI-7720G-4XF1

16 x GE & 4 x 10G SFP+ Port Managed Industrial L2 Switch



Features

- 16 x Gigabit Ethernet ports + 4 x 10G 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 12~48V_{DC} power inputs and 1 x relay output

Introduction

The EKI-7720G-4XF1 is a DIN rail L2 switch that comes with 16 10/100/1000BaseT(X) ports and 4 SFP+ ports. It features -40~75°C operating temperature and Din-Rail/Wall-Mount installation options, making it ideal for application which requires high-bandwidth transmission, and Din-Rail installation.

In addition, it is also embedded with Advantech exclusive features like IXM which benefits users for fast deployment and can dramatically save engineers time and costs, X-Ring Pro which achieves ultra-high speed recovery time of less than 20ms to ensure network stability, and Security Pack which protects your network from internal intrusion.

Specifications

Interfaces / Communications

- I/O Port**
 - 16 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
 - IEEE802.3ae for 10GBase over Fiber
 - IEEE 802.3x for Flow Control
- Console port**
 - RS-232 (RJ45)
- Power Connector**
 - 8-pin screw Terminal Block (including relay)
- Digital Input Channels**
 - 1
- Digital Inputs**
 - +13 to +30 V for state 1
 - 30 to +3 V for state 0
 - Max. input current: 8 mA
- USB**
 - USB Type A

Physical

- Enclosure**
 - Metal Shell
- Protection Class**
 - IP 40
- Installation**
 - DIN-Rail, Wall-mount
- Dimensions (W x H x D)**
 - 88 x 152 x 116 mm

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)
- Storage Temperature**
 - 40 ~ 85°C (-40 ~ 185°F)
- Ambient Relative Humidity**
 - 5 ~ 95% (non-condensing)
- Overload Current Protection**
 - Present
- Reverse Polarity Protection**
 - Present
- MTBF**
 - 821,301 hours

* With copper SFP x 4: -40~55°C (-40 ~ 131°F)

Power

- Power Consumption**
 - 24W @48V_{DC} (system)
- Power Input**
 - 12 ~ 48 V_{DC}, redundant dual power input
- Fault Output**
 - 1 Relay Output

Certification

- Safety**
 - UL 62368-1
- EMI**
 - CE, CISPR 32, FCC Part 15B Class A
- EMS**
 - IEC 61000-4-2 ESD: Contact: 8 kV; Air: 15 kV
 - IEC 61000-4-3 RS: 20 V/m
 - IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV
 - IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV
 - IEC 61000-4-6 CS: 10 V
 - IEC 61000-4-8 PFMF
- EMC**
 - EN 61000-6-2
 - EN 61000-6-4
- Shock**
 - IEC 60068-2-27
- Freefall**
 - IEC 60068-2-32
- Vibration**
 - IEC 60068-2-6

Switch Properties

- **Switching Capacity** 112Gbps
- **Transmission Rate** 83.06Mpps
- **MAC Table Size** 16K
- **Jumbo Frame** 12288 Bytes
- **Max. IGMP Group** 256
- **Max. VLAN Group** 256 (VLAN ID 1 – 4094)

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-7720G-4XFI-A** 16GE + 4x10G SFP+ Managed Ethernet L2 Switch W/T

Note: For SFP copper type, only 10Gbps supported.