

EKI-8712G-4XFI

8 x GE & 4 x 10G SFP+ Port Managed Industrial L3 Switch



Features

- 8 x Gigabit Ethernet ports + 4 x 10G SFP+ ports
- L3 function: Static route, NAT
- 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-8712G-4XFI is a DIN rail L3 switch that supports static route and NAT. It comes with 8 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** 8 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)** 57.5 x 152 x 116 mm

LED Indicators

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

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** TBD

* With copper SFP x 4: -40~60°C (-40 ~ 140°F)

Power

- **Power Consumption** 20W @48V_{DC} (system)
- **Power Input** 12 ~ 48 V_{DC}, redundant dual power input
- **Fault Output** 1 Relay Output with current carrying capacity of 1 A @ 24 V_{DC}

Certification

- **Safety** UL 62368
- **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

▪ Switch Capacity	96Gbps
▪ Transmission Rate	71.2Mpps
▪ 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

Routing

▪ Unicast Routing	NAT, Static routing
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Ordering Information

- **EKI-8712G-4XFI-AE** 8GE + 4x10G SFP+ Manged Ethernet L3 Switch W/T

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