

EKI-7710E-2C

EKI-7710E-2CI

8FE+2G Port Gigabit Managed Redundant Industrial Switch



Features

- 8 x Fast Ethernet ports + 2 x Gigabit Copper/SFP combo 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-7710E-2C and EKI-7710E-2CI support 8 fast Ethernet ports and 2 Gigabit combo ports. These units are also embedded with Advantech's IXM function for fast deployment, which can save a considerable amount on engineering time and costs. The EKI-7710E series also support NMS to help IT managers with networking maintenance and failure prevention. Finally, the series are equipped with X-Ring Pro, which can achieve ultra-high-speed recovery times of <20 ms, thus ensuring network stability.

Specifications

Interfaces / Communications

- **I/O Port** 8 x 10/100BASE-T/TX RJ-45
2 x 10/100/1000BASE-T/TX or SFP (mini-GBIC) Combo 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
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-7710E-2CI)
-10 ~ 60°C (-40 ~ 140°F) (EKI-7710E-2C)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Ambient Relative Humidity** 5 ~ 95% (non-condensing)
- **Overload Current Protection** Present
- **Reverse Polarity Protection** Present
- **MTBF** 1,679,827 hours

Power

- **Power Consumption** 12.1W @ 48V_{DC} (System)
- **Power Input** 12 ~ 48 V_{DC}, redundant dual power input
- **Fault Output** 1 Relay Output

Certification

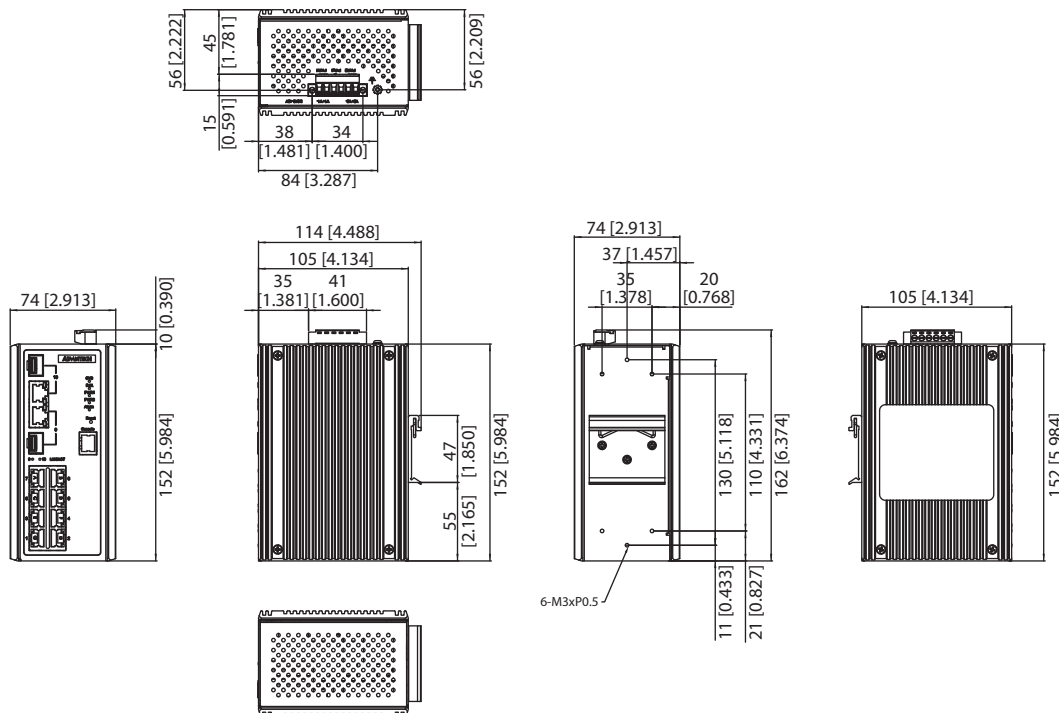
- **Safety** UL508, EN LVD 62368
- **EMI** CE, CISPR 32, FCC Part 15B Class A
- **EMS** EN 61000-4-2
EN 61000-4-3
EN 61000-4-4
EN 61000-4-5
EN 61000-4-6
EN 61000-4-8
- **EMC** EN 61000-6-2
EN 61000-6-4
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6
- **Traffic control** NEMA TS-2
- **Railway Trackside** EN 50121-4

Switch Properties

- **Switching Capacity** 5.6Gbps
- **Transmission Rate** 4.17Mpps
- **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)

Dimensions

Unit: mm [inch]



Panel Cut-out Dimensions: 105 (4.137) x 152 (5.984) x 74 (2.91)

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, TACACS+ |
| ▪ 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-7710E-2CI-AE** 8FE + 2G Combo Port Managed Ethernet Switch w/Wide Temp
- **EKI-7710E-2C-AE** 8FE + 2G Combo Port Managed Ethernet Switch

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