EKI-7656C

16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch

Features

- 2 Gigabit Copper/SFP combo ports, plus 16 Fast Ethernet ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring (ultra high-speed recovery time < 10 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, Windows Utility, SNMP
- Control: VLAN/GVRP, QOS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power inputs and 1 relay output
- Robust mechanism and special heat-dissipating design

Introduction

For many industrial automation applications, redundancy helps increase the reliability of your system. To create reliability in your network, the EKI-7656C 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 10 ms. Furthermore, EKI-7656C 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
- **LAN** 10/100/1000Base-TX, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port)
- **Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation, SFP: Up to 1000 Mbps

Interface

- **Connectors** 16 x RJ-45 (Ethernet)
2 x RJ-45/SFP (mini-GBIC) combo ports
6-pin removable screw terminal (Power&Relay)
- **LED Indicators** System: PWR, PWR1, PWR2, R.M., P-Fail
Ethernet: Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000Mbps)
SFP: Link/Activity
- **Console** RS-232 (RJ-45)

Network Management

- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Configuration** Web browser, Telnet, Serial consloe, Windows Utility, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- **Redundancy** ADVANTECH X-Ring (Recovery time < 10ms at 30pcs full loading ring structure), Dual Homing, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access 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

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 72 x 152 x 105 mm
- **Mounting** DIN-rail, wall

Power

- **Power Consumption** Max. 10.7 W
- **Power Input** 2 x Unregulated 12~ 48 V_{DC}
- **Fault Output** 1 Relay Output

Protection

- **ESD (Ethernet)** 4,000 V_{DC}
- **Surge (EFT for power)** 3,000 V_{DC}
- **Power Reverse** YES
- **Overload** 3.5 A @ 12 V_{DC} (Fuse)

Environment

- **Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
  Extended temp. model -40 ~ 75° C (-40 ~ 167° F)
- **Storage Temperature** -40 ~ 85° C (-40 ~ 185° F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 295,000 hours

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8, EN61000-6-2
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-7656C** 16+2G Combo Ports Industrial Managed Redundant Gigabit Ethernet Switch

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