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EKI-2548I

8Tx Managed Ethernet Switch with Wide Temperature



Features

- All Fast Ethernet ports for 8 Copper (EKI-2548I)
- Redundancy: Advantech X-Ring Pro, Dual Homing, Couple Ring, and RSTP/STP (802.1w/1d)
- Configuration: SNMP v1/v2c, Web
- Backplane (Switching Fabric): 1.6 Gbps
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature -40 ~ 75°C
- DIP switch for configure port alarm and enable Ring master

Introduction

EKI-2548I is a cost effective managed industrial Ethernet switch which supports Fast Ethernet. To enhance reliability in industrial communication network, it equipped with Advantech owned redundant network protocol -- X-Ring Pro, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-2548I also supports advanced network standards to optimize network performance, reduce maintenance cost, and secure network safety.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.1d, 802.1w, 802.1p, 802.1Q
- **LAN** 10/100Base-TX
- **Transmission Distance** Ethernet : Up to 100 m
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 8 x RJ45 ports
- **LED Indicators** System: PWR1, PWR2, P-Fail, R-Master
Ethernet port: Link/Activity, Speed
Fiber port: Link/Activity
- **Reset Button** Reset and restore to factory default

Network Management

- **Configuration** SNMP v1/v2c, Web
- **VLAN** IEEE 802.1Q, Port based VLAN
- **Redundancy** Advantech X-Ring Pro, Dual Homing, Couple Ring, IEEE 802.1d STP, and IEEE 802.1w RSTP
- **Security** IP access security
- **Traffic Control** IGMP Snooping/Query for multicast group management, rate limit and storm control
- **Diagnostics** Port Mirroring, SNTP, Syslog, SNMP Trap, Email Alert

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 59.6 x 152 x 105 mm (2.35" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 7.6 W
- **Power Input** 12 ~ 48 V_{DC}, 24 V_{AC} (18 ~ 30 V_{AC})
- **Fault Output** 1 Relay Output, 1A @ 24 V_{DC}

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -40 ~ 75°C (-40 ~ 167°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 5 ~ 95% (non-condensing)
- **MTBF** 215,266 hours

Certifications

- **Safety** UL 508
Class I, Division 2
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-2548I** 8Tx Managed Ethernet Switch w/Wide Temp

EKI-2548SI/MI

EKI-2548I

6Tx+2 Fiber Optic Managed Ethernet Switches with Wide Temperature

8Tx Managed Ethernet Switch with Wide Temperature



Features

- All Fast Ethernet ports for 8 Copper (EKI-2548I)
- 6 Copper + 2 Fiber Optic (EKI-2548SI/MI)
- Redundancy: Advantech X-Ring, Dual Homing, Couple Ring, and RSTP/STP (802.1w/1d)
- Configuration: SNMP v1/v2c, Web
- Backplane (Switching Fabric): 1.6Gbps
- Dual 12 ~ 48VDC power input and 1 relay output
- Supports wide operating temperature -40 ~ 75° C
- DIP switch for configure port alarm and enable Ring master

Introduction

EKI-2548I and EKI-2548SI/MI is a cost effective managed industrial Ethernet switch which supports Fast Ethernet. To enhance reliability in industrial communication network, it equipped with Advantech owned redundant network protocol -- X-Ring, 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-2548I and EKI-2548SI/MI also support advanced network standards to optimize network performance, reduce maintenance cost, and secure network safety.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.1d, 802.1w, 802.1p, 802.1Q
- **LAN** 10/100Base-TX
- **Transmission Distance** Ethernet : Up to 100m
Multi-mode Fiber: Up to 2km (EKI-2548MI)
Single-mode Fiber: Up to 30km (EKI-2548SI)
- **Transmission Speed** Up to 100Mbps

Interface

- **Connectors** 8 x RJ45 ports (EKI-2548I)
6 x RJ45 ports + 2xSC type fiber optic (EKI-2548SI/MI)
- **LED Indicators** System: PWR1, PWR2, P-Fail, R-Master
Ethernet port: Link/Activity, Speed
Fiber port: Link/Activity
- **Reset Button** Reset and restore to factory default

Network Management

- **Configuration** SNMP v1/v2c, Web
- **VLAN** IEEE 802.1Q, Port based VLAN
- **Redundancy** Advantech X-Ring, Dual Homing, Couple Ring, IEEE802.1d STP, and IEEE802.1w RSTP
- **Security** IP access security
- **Traffic Control** IGMP Snooping/Query for multicast group management, rate limit and storm control
- **Diagnostics** Port Mirroring, SNMP, Syslog, SNMP Trap, Email Alert

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 59.6 x 152 x 105 mm
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** 7.6 W max. @ 12 V_{DC}; 6.3 W max. @ 24 V_{AC} / 60Hz (EKI-2548I)
10.6 W max. @ 12 V_{DC}; 9.5 W max. @ 24 V_{AC} / 60Hz (EKI-2548SI/MI)
- **Power Input** 12 ~ 48 V_{DC}, 24VAC (18~30 V_{AC})
- **Fault Output** 1 Relay Output, 1A @ 24 V_{DC}

Protection

- **Power Reverse** Present

Environment

- **Operating Temperature** -40 ~ 75° C (-40 ~ 167° F)
- **Storage Temperature** -40 ~ 85° C (-40 ~ 185° F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 5 ~ 95% (non-condensing)
- **MTBF** 215,266 hrs (EKI-2548I)
337,238 hrs (EKI-2548MI)

Certifications

- **Safety** UL 508; Class I, Division 2
- **EMC** CE, FCC Class A
EN61000-3-2/3, IEC61000-4-2/3/4/5/6/8/11, EN61000-6-2/4
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-2548SI** 6Tx + 2 SM Managed Ethernet Switch w/ Wide Temp
- **EKI-2548MI** 6Tx + 2 MM Managed Ethernet Switch w/ Wide Temp
- **EKI-2548I** 8Tx Managed Ethernet Switch w/ Wide Temp

EKI-6558TI

EKI-6559TMI

EN50155 IP67 8-port M12 Managed Ethernet Switch with Wide Temperature

EN50155 IP67 8-port M12 + 2-port Fiber Optic Managed Ethernet Switch with Wide Temperature



Features

- EN50155 certified
- Supports X-Ring Pro function (ultra high-speed recovery time < 20 ms)
- Wide redundant power design
- Provides M12 connector with IP67 protection
- Provides Waterproof fiber optic connector
- TFTP firmware updates and system configure restore and backup
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature -40 ~ 75°C
- Provides 100 Mbps LC type connector

Introduction

EKI-6558TI and EKI-6559TMI are EN50155 certified IP67 wide temperature industrial switches which are especially designed for railway industry and harsh environments. M12 connectors secure highly reliable connectivity for industrial communication applications. EN50155 certification ensures the use of railway application. EKI-6559TMI also provides two additional fiber optic ports to extend communication range. Both EKI-6558TI and EKI-6559TMI provide Advantech's X-Ring Pro protocol, which enables users to establish a redundant Ethernet network with ultra high-speed recovery (less than 20 ms). They also support advanced network standards to optimize network performance, reduce maintenance cost, and secure network safety.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
- **LAN** 10/100Base-T (X), 100Base-FX
- **Transmission Speed** Up to 100 Mbps

Interface

- **Ethernet** M12, 4-pole D-coded, Female x 8
- **Fiber Optic** LC type waterproof x 2, Multi-mode (EKI-6559TMI)
- **Console** M12, 8-pole A-coded, Female x 1

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, Email Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP67, aluminum shell with solid mounting kits
- **Dimensions (W x H x D)** 193 x 176 x 62.5 mm (7.59" x 6.93" x 2.46")
- **Mounting** Wall

Power

- **Power Consumption** Max. 8.1 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Power Connector** M12, 5-pole A-coded, male x 1
- **P-Fail Output** 1A @ 24 V_{DC}
- **P-Fail Connector** M12, 8-pole A-coded, Female x 1

Protection

- **Power Reverse** Present

Environment

- **Operating Temperature** -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** 388,201 hours (EKI-6558TI)
320,420 hours (EKI-6559TMI)

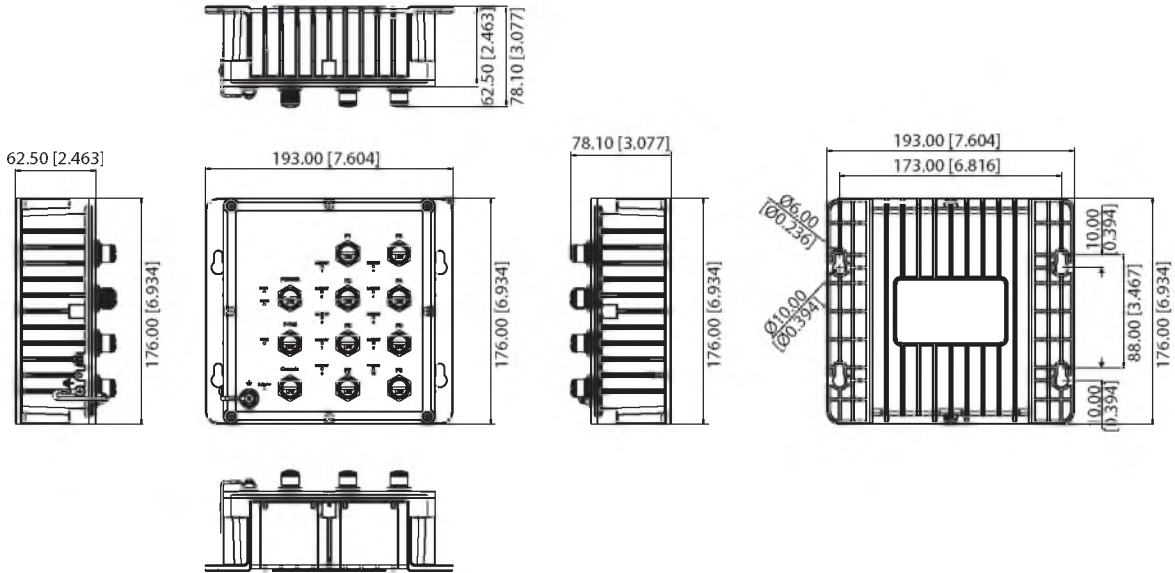
Certification

- **Safety** UL 508
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 61373
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 61373
- **Railway** EN50155, EN 50121-3-2, EN 50121-4

Dimensions

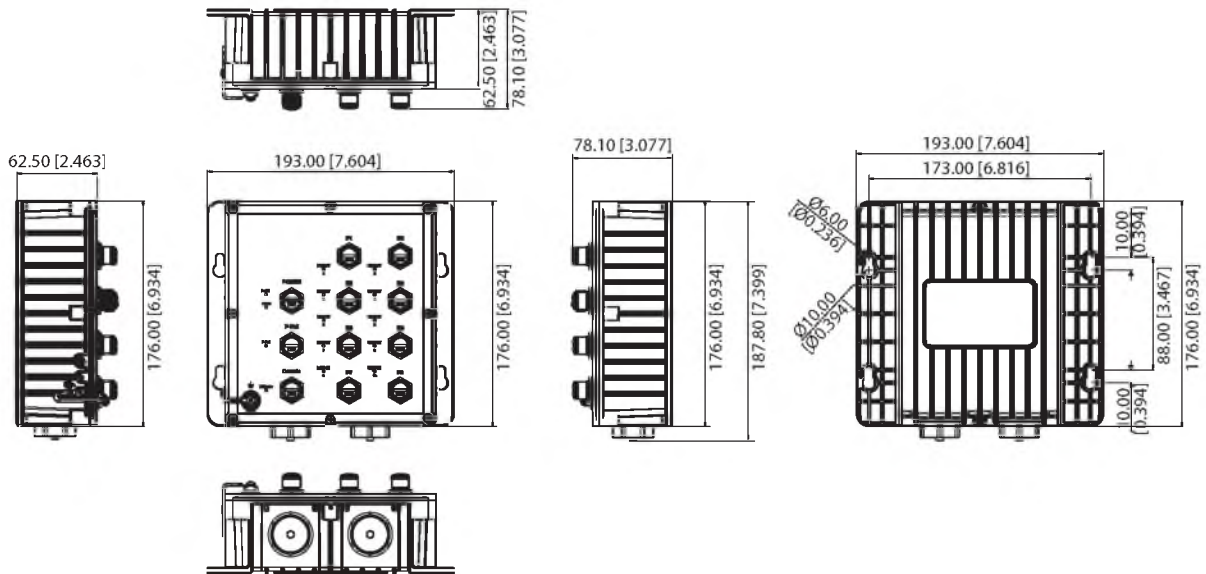
Unit: [mm]

EKI-6558TI



Panel Cut-out Dimensions: 193 x 176 x 62.5 (7.604" x 6.934" x 2.463")

EKI-6559TMI



Panel Cut-out Dimensions: 193 x 176 x 62.5 (7.604" x 6.934" x 2.463")

Ordering Information

- EKI-6558TI EN50155 8-port M12 Managed Ethernet Switch
- EKI-6559TMI EN50155 8-port M12+ 2-port FX Managed Ethernet Switch

EKI-7559SI/MI

EKI-7554SI/MI

8+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

4+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature



EKI-7559SI/MI

EKI-7554SI/MI



Features

- 2 x SC type fiber ports, plus 4 Fast Ethernet ports. (EKI-7554SI/MI)
- 2 x SC type fiber ports, plus 8 Fast Ethernet ports. (EKI-7559SI/MI)
- Redundancy: X-Ring Pro (high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC, port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature -40 ~ 75°C

Introduction

Both EKI-7554SI/MI and EKI-7559SI/MI support 2 SC type Fiber ports, EKI-7554SI/MI 4 Fast Ethernet ports and EKI-7559SI/MI can support up to 8 Fast Ethernet ports. To create reliability in your network, the EKI-7554SI/MI come equipped with a proprietary redundant network protocol -- X-Ring Pro 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 20 ms. Furthermore, EKI-7554SI/MI 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, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
- **LAN** 10/100Base-T (X), 100Base-FX
- **Transmission Distance** Ethernet : Up to 100 m
Multi-mode Fiber: Up to 2 km (EKI-7554MI)
Single-mode Fiber: Up to 30 km (EKI-7554SI)
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 4 x RJ45 ports (EKI-7554SI/MI)
8 x RJ45 ports (EKI-7559SI/MI)
2 x SC type fiber optic connectors
- **LED Indicators** System: PWR, PWR1, PWR2, R.M., P-Fail
10/100T (X): Link/Activity, Duplex/Collision
- **Console** RS-232 (RJ45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, Email Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 7.7 W (EKI-7554SI/MI)
Max. 8.4 W (EKI-7559SI/MI)
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -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** 262,230 hours (EKI-7554SI/MI)
264,964 hours (EKI-7559SI/MI)

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No. 60950 Class 1, Division 2 (EKI-7559MI/SI)
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-7554SI** 4FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
- **EKI-7554MI** 4FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp
- **EKI-7559SI** 8FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
- **EKI-7559MI** 8FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp

EKI-7654C

4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch



Features

- 2 Gigabit Copper/SFP combo ports, plus 4 Fast Ethernet ports
- Full/half duplex mode flow control
- MDI/MDI-X auto crossover
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/ Query, LACP, Rate
- Limit Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3 Diagnostic: Port Statistic, Port Mirroring, RMON, SNMP Trap, SMTP, Syslog, SSL
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

EKI-7654C supports 4 Fast Ethernet ports and 2 Gigabit combo ports. To create reliability in your network, the EKI-7654C comes equipped with a proprietary redundant network protocol -- X-Ring Pro 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 20 ms. Furthermore, EKI-7654C 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, 802.3ab
- **LAN** 100Base-TX, 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Ethernet: 10/100 Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000 Mbps

Interface

- **Connectors** 4 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR, PWR1, PWR2, R.M., P-Fail
10/100T (X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000 Mbps)
SFP: Link/Activity
- **Console** RS-232 (RJ45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SMTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 10.7 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 284,409 hours

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-7654C** 4FE + 2G Combo Port Managed Ethernet Switch

EKI-7758F

4G+4 SFP Gigabit Managed Redundant Industrial Ethernet Switch



Features

- All Gigabit Ethernet ports for 4 Copper and 4 SFP
- SFP sockets for easy and flexible fiber expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL
- Diagnostic: Port statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

EKI-7758F supports 8 Gigabit ports with 4 x Ethernet and 4 x SFP. To create reliability in your network, the EKI-7758F 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 20 ms. Furthermore, EKI-7758F 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, 802.3ab
- **LAN** 100Base-T (X), 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet : Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
SFP: Up to 1000 Mbps

Interface

- **Connectors** 4 x RJ45 (Ethernet)
4 x SFP (mini-GBIC) ports
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR, R.M., PWR1, PWR2, P-Fail
Gigabit Copper: Link/Activity, Speed
SFP: Link/Activity
- **Console** RS-232 (RJ45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 17 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 289,777 hours

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950 Class 1, Division 2
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-7758F** 4G+4 SFP Managed Gigabit Ethernet Switch

EKI-7656C/CI

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 Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power inputs and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7656CI)

Introduction

EKI-7656C supports 16 Fast Ethernet ports and 2 Gigabit combo ports. To create reliability in your network, the EKI-7656C comes equipped with a proprietary redundant network protocol -- X-Ring Pro 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 20 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, 802.3ab
- **LAN** 10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
- **Transmission Speed** Ethernet: 10/100 Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation,
SFP: Up to 1000 Mbps

Interface

- **Connectors** 16 x RJ45 (Ethernet)
2 x RJ45/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 (1000 Mbps)
SFP: Link/Activity
- **Console** RS-232 (RJ45)

Network Management

- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, E-Mail Alert, SNMP Trap, RMON
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 10.7 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
-40 ~ 75°C (-40 ~ 167°F) (EKI-7656CI)
- **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
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-7656C** 16FE + 2G Combo Port Managed Ethernet Switch
- **EKI-7656CI** 16FE + 2G Combo Port Managed Ethernet Switch w/ Wide Temp

EKI-7659C/CI

8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch



Features

- 2 Gigabit Copper/SFP combo ports, plus 8 Fast Ethernet ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7669C1)

Introduction

EKI-7659C support 8 Fast Ethernet ports and 2 Gigabit combo ports. To create reliability in your network, the EKI-7659C comes equipped with a proprietary redundant network protocol -- X-Ring Pro 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 20 ms. Furthermore, EKI-7659C 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, 802.3ab
- **LAN** 10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Ethernet: 10/100 Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000 Mbps

Interface

- **Connectors** 8 x RJ45 (Ethernet)
2 x RJ45/SFP (mini-GBIC) combo ports
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR, PWR1, PWR2, R.M., P-Fail
10/100T (X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000 Mbps)
SFP: Link/Activity
- **Console** RS-232 (RJ45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **Redundancy** Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
- **Security** IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 10.7 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload Current** Present

Environment

- **Operating Temperature** -10 ~ 60°C (14 ~ 140°F)
-40 ~ 75°C (-40 ~ 167°F) (EKI-7659C1)
- **Storage Temperature** -40 ~ 85°C (-40 ~ 185°F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)
- **MTBF** 284,409 hours

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMI** FCC Part 15 Subpart B Class A, EN 55022 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
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

Ordering Information

- **EKI-7659C** 8FE + 2G Combo Port Managed Ethernet Switch
- **EKI-7659CI** 8FE + 2G Combo Port Managed Ethernet Switch w/ Wide Temp

EKI-9312

Industrial-Class 12 Port Full Gigabit Managed DIN Rail Switch

NEW



FC CE

Features

- All Gigabit connections support dual-ring protection and non-blocking traffic forwarding
- X-Ring+: recovery time within 20ms for 250 node connections
- STP, RSTP, MSTP for better redundancy
- Super security mechanism includes SSL, SSH, 802.1X, MAC, IP filtering, RADIUS, TACACS+, VLAN for access protection
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9312 Gigabit Managed Ethernet Switches are designed for rigorous mission critical applications, such as factory automation, ITS, and process control. The 4 Gigabit Ethernet ports allow great flexibility to build up a Gigabit redundant ring and a Gigabit uplink.

The EKI-9312 is equipped with 8 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring+ with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9312 are designed especially for communication demanding applications, such as video and process monitoring, or intelligent transportation systems, all of which can benefit from a scalable backbone construction.

Specifications

Interface

- I/O Port 8 x 10/100/1000Base-T/TX RJ-45
4 x 1000BASE-X SFP
- Console port RJ-45
- F/W backup port USB
- Power Connector 6-pin screw Terminal Block (including relay)

Physical

- Enclosure Aluminum Shell
- Protection Class IP 30
- Installation DIN Rail
- Dimensions (W x H x D) 86 x 165 x 125 (mm)

LED Display

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

Environment

- Operating Temperature -40 ~ 75°C
- Storage Temperature -40 ~ 85°C
- Ambient Relative Humidity 10 ~ 95% (non-condensing)
- Humidity 10 ~ 95% (non-condensing)

Power

- Power Consumption ~ 21.82 Watts (System)
- Power Input 24/48 V_{DC} dual inputs

Certification

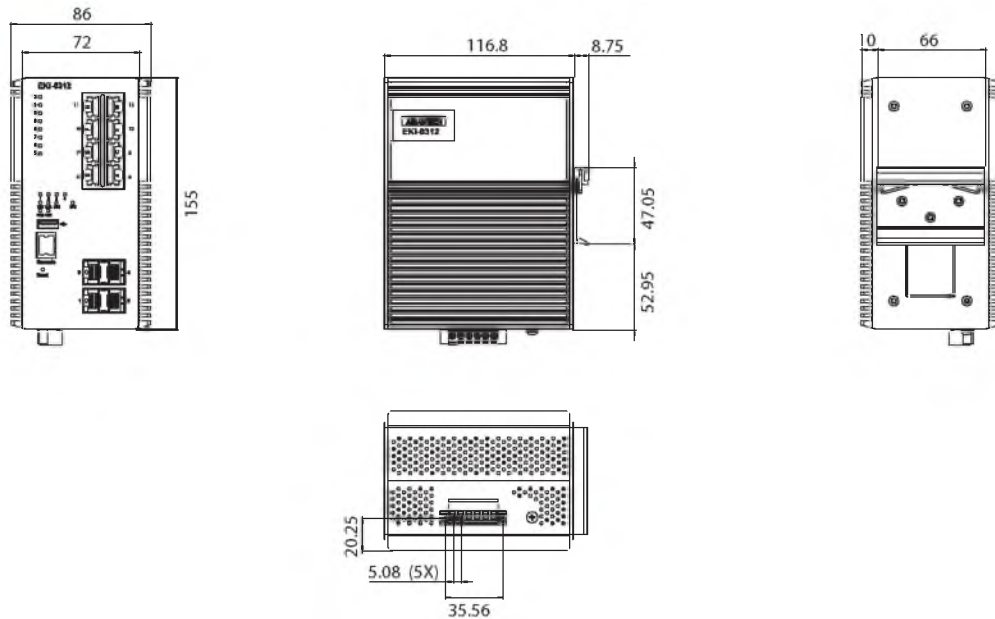
- EMI CE, FCC Class A
- Safety UL60950 C1D2
- EMC EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
- Shock IEC 60068-2-27
- Freefall IEC 60068-2-32
- Vibration IEC 60068-2-6

L2 Features

- L2 MAC Address 16K
- Jumbo Frame 12KB
- VLAN Group 4K (VLAN ID 1-4094)
- VLAN Arrange Mac based VLAN, Protocol based VLAN, IP subnet based VLAN, Port based VLAN, Q-in-Q (VLAN Stacking), GVRP
- Port Mirroring Per port, Multi-source port, RSPAN,
- IP Multicast IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
- Storm Control Broadcast, Multicast, Unknown unicast
- Spanning Tree IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring+

Dimensions

Unit: mm



QoS

- **Priority Queue Scheduling** WRR (Weighted Round Robin), SP (Strict Priority), Hybrid Priority
- **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
- **Authentication** 802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TCACAS+
- **ACL** 1K rules
- **Advanced Security** IP Source guard, ARP inspection, DHCP Snooping

Management

- **DHCP** Client, Server, Relay, Option66/67/82
- **Access** SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
- **Security access** SSH2.0, SSL
- **Software upgrade** TFTP, HTTP, Dual Image
- **NTP** NTP client/server

Ordering Information

- **EKI-9312-C0ID42E** Layer 2 Fastpath, 8xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 V_{DC} Redundant Power Input

Contact our sales for more pricing & ordering information.

EKI-9316

Industrial-Class 16 Port Full Gigabit Managed DIN Rail Switch

NEW



FC CE

Features

- All Gigabit connections support dual-ring protection and non-blocking traffic forwarding
- X-Ring+: recovery time within 20ms for 250 node connections
- STP, RSTP, MSTP for better redundancy
- Super security mechanism includes SSL, SSH, 802.1X, MAC, IP filtering, RADIUS, TACACS+, VLAN for access protection
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9316 Gigabit Managed Ethernet Switches are designed for rigorous mission critical applications, such as factory automation, ITS, and process control. The 4 Gigabit Ethernet ports allow great flexibility to build up a Gigabit redundant ring and a Gigabit uplink.

The EKI-9316 is equipped with 12 Gigabit Ethernet ports and up to 4 fiber optic ports, making them ideal for upgrading an existing network to Gigabit speed or building a new, full Gigabit network. The X-Ring+ with RSTP, STP and MSTP support, increases system reliability and the availability of your network. The EKI-9316 is designed especially for communication demanding applications, such as video and process monitoring, or intelligent transportation systems, all of which can benefit from a scalable backbone construction.

Specifications

Interface

- **I/O Port** 12 x 10/100/1000Base-T/TX RJ-45
4 x 1000 BASE-X SFP
- **Console port** RJ-45
- **F/W backup port** USB
- **Power Connector** 6-pin screw Terminal Block (including relay)

Physical

- **Enclosure** Aluminum Shell
- **Protection Class** IP 30
- **Installation** DIN Rail
- **Dimensions (W x H x D)** 86 x 165 x 125 (mm)

LED Display

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

Environment

- **Operating Temperature** -40 ~ 75°C
- **Storage Temperature** -40 ~ 85°C
- **Ambient Relative Humidity** 10 ~ 95% (non-condensing)
- **Humidity** 10 ~ 95% (non-condensing)

Power

- **Power Consumption** ~ 21.82 Watts (System)
- **Power Input** 24/48 V_{DC} dual inputs

Certification

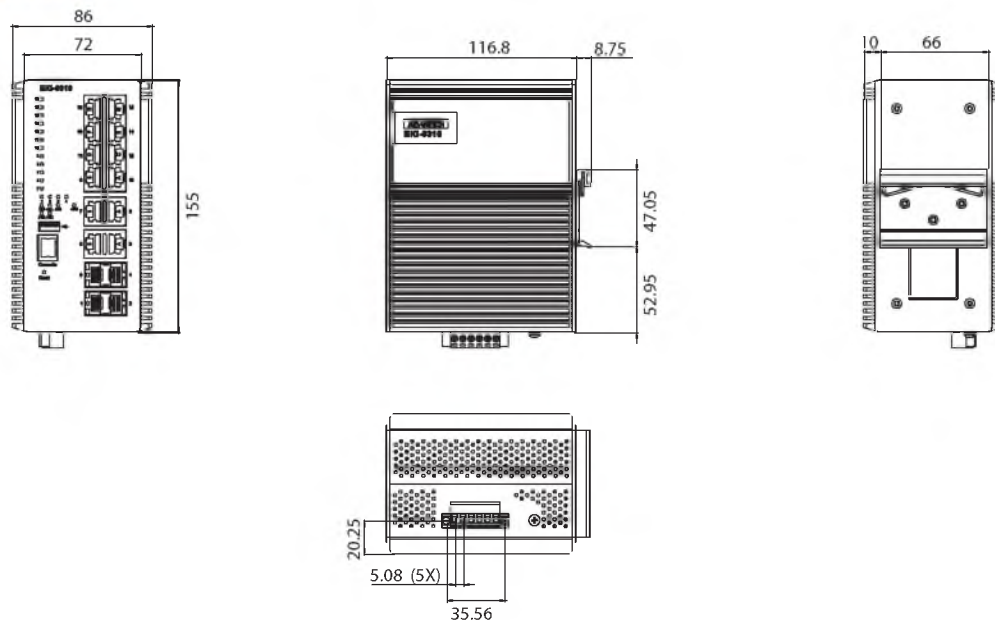
- **EMI** CE, FCC Class A
- **Safety** UL60950 C1D2
- **EMC** EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
- **Shock** IEC 60068-2-27
- **Freefall** IEC 60068-2-32
- **Vibration** IEC 60068-2-6

L2 Features

- **L2 MAC Address** 16K
- **Jumbo Frame** 12KB
- **VLAN Group** 4K (VLAN ID 1-4094)
- **VLAN Arrange** Mac based VLAN, Protocol based VLAN, IP subnet based VLAN, Port based VLAN, Q-in-Q (VLAN Stacking), GVRP
- **Port Mirroring** Per port, Multi-source port, RSAPN,
- **IP Multicast** IGMP Snooping v1/v2/v3, MLD Snooping, IGMP Immediate leave
- **Storm Control** Broadcast, Multicast, Unknown unicast
- **Spanning Tree** IEEE 802.1D-STP, IEEE 802.1s-MSTP, IEEE 802.1w-RSTP, X-Ring+

Dimensions

Unit: mm



QoS

- **Priority Queue Scheduling** WRR (Weighted Round Robin), SP (Strict Priority), Hybrid Priority
- **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
- **Authentication** 802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADIUS, TCACAS+
- **ACL** 1K rules
- **Advanced Security** IP Source guard, ARP inspection, DHCP Snooping

Management

- **DHCP** Client, Server, Relay, Option66/67/82
- **Access** SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
- **Security access** SSH2.0, SSL
- **Software upgrade** TFTP, HTTP, Dual Image
- **NTP** NTP client/server

Ordering Information

- **EKI-9316-C0ID42E** Layer 2 Fastpath, 12xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 V_{DC} Redundant Power Input

Contact our sales for more pricing & ordering information.

По вопросам продаж и поддержки обращайтесь:

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