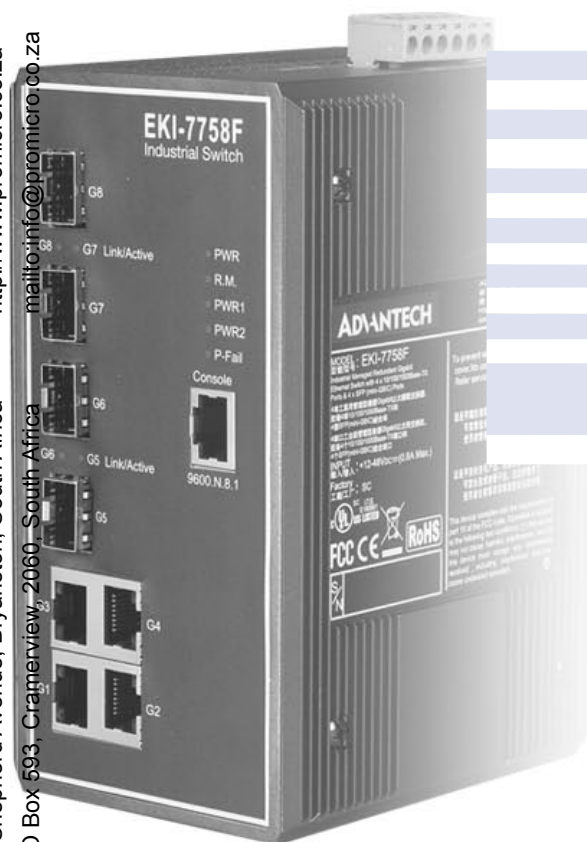




Industrial Ethernet Solutions

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Wireless Access Points/Client Bridges

EKI-6311GN (New) IEEE 802.11 b/g/n Wireless Access Point/Client Bridge

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EKI-6321AG (New) 802.11a/b/g Single Radio Outdoor Wireless Access Point

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EKI-6322AG (New) 802.11a/b/g Dual Radio Outdoor Wireless Access Point

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EKI-6323AG (New) 802.11a/b/g Triple Radio Outdoor Wireless Access Point

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EKI-6311G 802.11 b/g Wireless Access Point/Client Bridge

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Managed Redundant Industrial Ethernet Switches

EKI-4654R 24 x 10/100Base-T Copper Ports + 2 x 1000Base SFP Ports

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EKI-6558TI (New) 8-port M12 IP67 Managed Industrial Ethernet Switch with Wide Temperature

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EKI-6559TMI (New) 8-port M12 + 2-port Fiber Optic IP67 Managed Industrial Ethernet Switch with Wide Temperature

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

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EKI-7656C/CI 16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch

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EKI-7659C/CI 8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch

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EKI-7657C 7+3G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch with 2 x DI/O

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EKI-7654C 4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch

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EKI-7554SI/MI 4+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

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EKI-7559SI/MI 8+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

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EKI-7556MI (New) 16+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

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EKI-2748FI (New) 4Gx+4SFP Managed Ethernet Switch with Wide Temperature

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EKI-2748CI (New) 6Gx+2 Combo Managed Ethernet Switch with Wide Temperature

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EKI-2548MI (New) 6Tx+2 Multi-Mode Managed Ethernet Switch with Wide Temperature

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EKI-2548I (New) 8Tx Managed Ethernet Switch with Wide Temperature

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Unmanaged Industrial Ethernet Switches

EKI-4524I (New) 24-port Ethernet Switch with Wide Temperature

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EKI-4524RI (New) 24+2 SFP Port Unmanaged Industrial Ethernet Switch with Wide Temperature

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EKI-7526I (New) 16+2 Port Unmanaged Industrial Ethernet Switch with Wide Temperature

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EKI-7526MI (New) 16+2 SC Type Fiber Optic Unmanaged Industrial Ethernet Switch with Wide Temperature

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EKI-7529MI (New) 8+2 Multi-mode Fiber Optic Industrial Unmanaged Ethernet Switch with Wide Temperature

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EKI-7626C/CI 16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch

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EKI-7629C/CI 8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch

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EKI-2728MI (New) 6G+2G Multi-mode Unmanaged Ethernet Switch with Wide Temperature

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EKI-2725 5-port Gigabit Unmanaged Industrial Ethernet Switch

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EKI-2728 8-port Gigabit Unmanaged Industrial Ethernet Switch

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EKI-2525/I 5-port Unmanaged Industrial Ethernet Switch

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EKI-2528/I 8-port Unmanaged Industrial Ethernet Switch

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EKI-2525M 4+1 100FX Port Multi-Mode Unmanaged Industrial Ethernet Switch

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EKI-2526M/S 4+2 100FX Port Unmanaged Industrial Ethernet Switch

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Industrial PoE Switches

EKI-7659CPI (New) 8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature

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EKI-2525P 5-port Industrial PoE Switch

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EKI-2525SPI (New) 5-port Industrial PoE Switch with 1x100Fx Single-Mode and Wide Temperature

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EKI-2525PA 6-port Industrial PoE Switch with Wide Temperature

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EKI-2528PAI (New) 5-port Industrial PoE Switch with 24/48 V_{DC} Power Input

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EKI-2528PAI (New) 8-port Industrial PoE Switch with 24/48 V_{DC} Power Input and Wide Temperature

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EKI-2701PSI Industrial PoE Splitter with Wide Temperature

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Industrial Media Converters

EKI-2541M/MI 10/100T(X) to Multi-Mode SC Type Fiber Optic Industrial Media Converter

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EKI-2541S/SI 10/100T(X) to Single-Mode SC Type Fiber Optic Industrial Media Converter

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EKI-2741 Series 10/100/1000T(X) to Fiber Optic Gigabit Industrial Media Converters

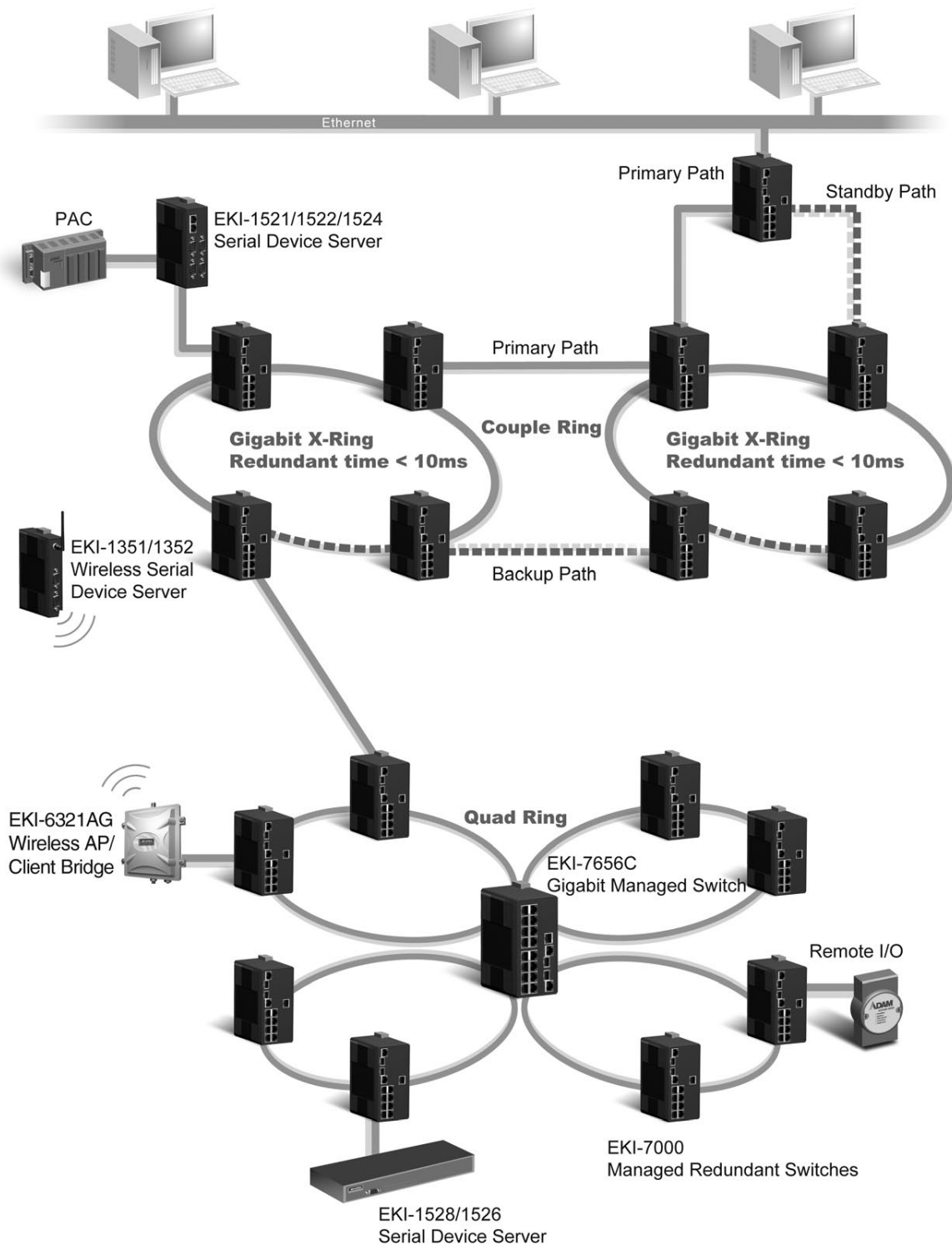
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Accessories

Accessories Small Form-factor Pluggable (SFP) Transceiver Modules

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Redundant Network Technology Introduction



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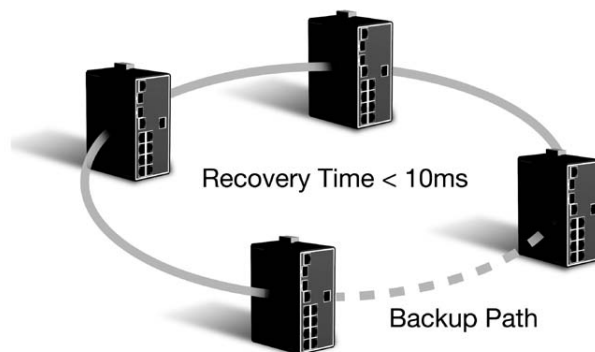
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Advantech's X-Ring

Four Redundant Ways to Maximize Communication Reliability

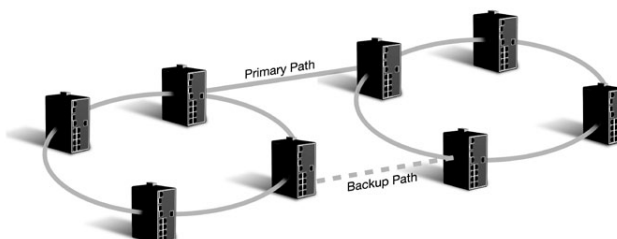
Gigabit Redundant X-Ring

The X-Ring redundant architecture allows one switch in the ring to be the Primary Ring Master. One path of the Ring Master is the forwarding path, while the other is the backup path. If one link fails, the Primary Ring Master automatically activates the backup path within 10ms. EKI managed switches provide highly solid and reliable communications for your system.



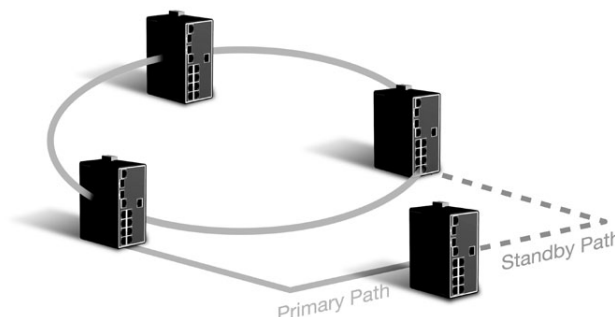
Redundant Couple Ring

Redundant Couple Ring is a flexible topology to connect several rings together to act as one virtual ring. Communication between the rings can recover itself automatically if any couple ring path fails.



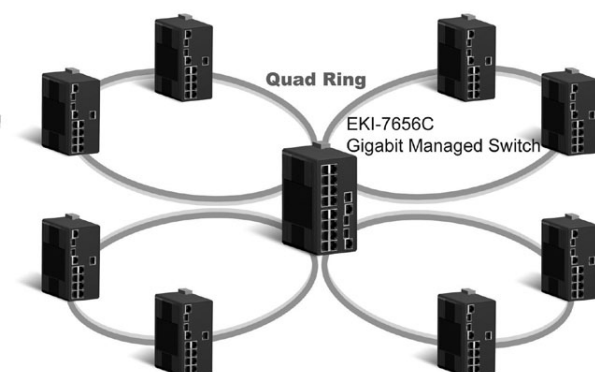
Dual Homing

EKI managed switches support Dual Homing for connecting with another network which runs RSTP (Rapid Spanning Tree Protocol) or other ring protocols. Dual Homing means an EKI switch is connected to a network with two independent connecting paths. The standby path will be actuated when the primary path fails. Thus, Users can connect 2 paths to the same switches, or switches on different levels of the network architecture. This is a convenient way for the network planner to expand the network without replacing existed devices.



Quad Ring

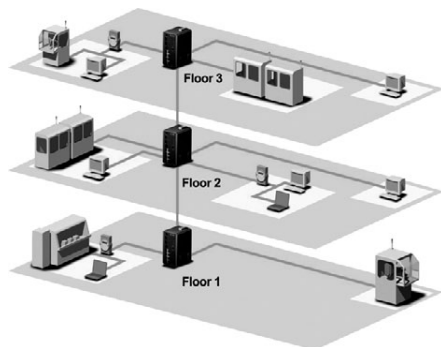
Advantech's Quad Ring is a flexible topology which can combine 4 adjoining X-Rings into one central switch. This provides centralized management and saves costs.

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Advanced Network Management

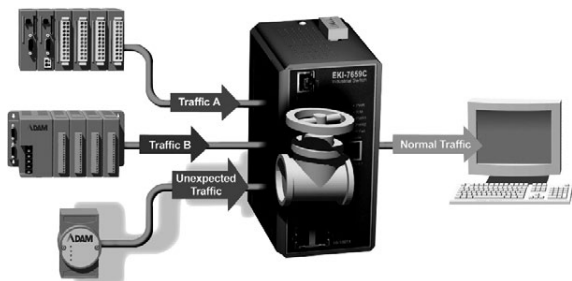
VLAN - Segmenting Network Devices with Security

Virtual Local Area Network (VLAN) improves the security by grouping Ethernet devices logically and confining traffic between these groups even if the devices all share the same physical switch.



QoS - Traffic Prioritization for Deterministic Communication

Quality of Service (QoS) ensures critical data is delivered consistently and predictably. Advantech's EKI series supports Layer 2 802.1p priority queue control to prioritize network packets.



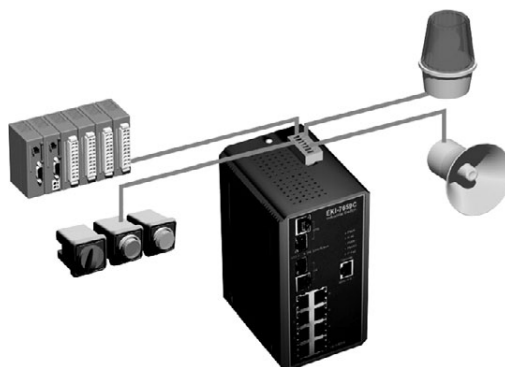
IGMP Snooping - Advanced Traffic Control for Network Optimization

Network broadcast storms or malfunctioning network devices will generate unexpected, large packets which can block network traffic. Advantech's EKI series is able to configure the ingress/egress rate of unicast/multicast/broadcast packets in parts and limit the bandwidth of each individual port to regulate the information flow without choking off individual data streams.



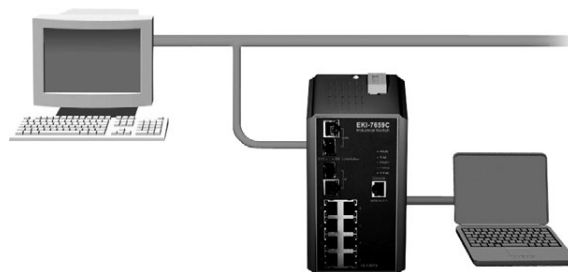
Configurable DI/O Message Response

By simply setting up a web-based configuration, you can manage the connection between two digital inputs (DI) and two digital outputs (DO) that are built into EKI. These are invaluable when integrating field indicators or alarm devices that will respond to messages according to individual user's configured settings.



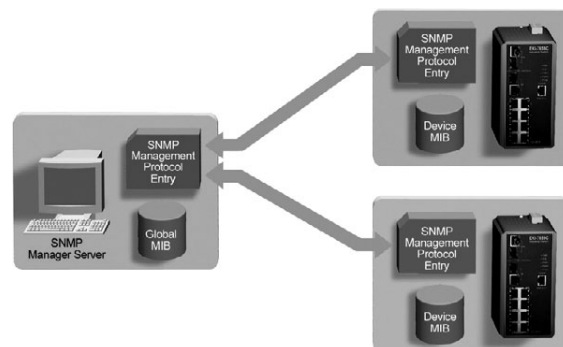
Flexible Configuration Modes for Different Applications

Advantech's EKI series supports web and console-based configurations for different applications. You can configure EKI through a web browser remotely without extra utilities or by using a direct connection to the console port of EKI through a single serial cable. Furthermore, with the X-View function you can log in to multiple switches simultaneously.



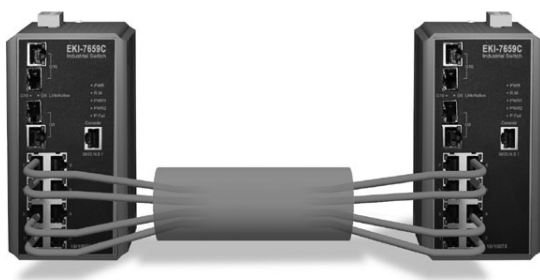
SNMP - Efficient Device Management

The Simple Network Management Protocol (SNMP), is an application-layer protocol designed to facilitate the exchange of management and performance information between networked devices. Using SNMP facilitates monitoring of device and network performance, and easier diagnosis and problem-solving.



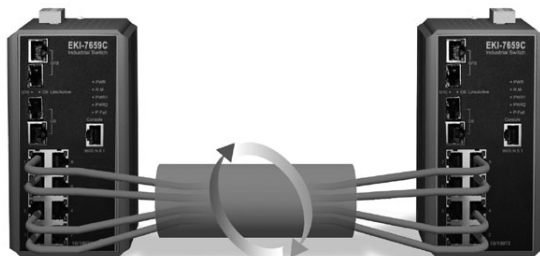
Port Trunking - Grouped Bandwidth for Flexible Networking Arrangements

Port Trunking is grouping two or more ports together and working as a logical path. This can be used to increase the bandwidth up to 800 Mbps between two cascaded switches.



LACP – Flexible Networking Arrangements

LACP (IEEE802.3ad, Link Aggregation Control Protocol) provide redundant path and flexible network arrangement between two cascaded EKI switches. This can aggregate multi-ports and control the bundling of several ports together.



Relay Output Warning

Advantech's EKI series supports relay output to notify users in the event of a power failure. Quick notification and fast response time can shorten service procedures and reduce data loss in the field.



Advanced Network Management

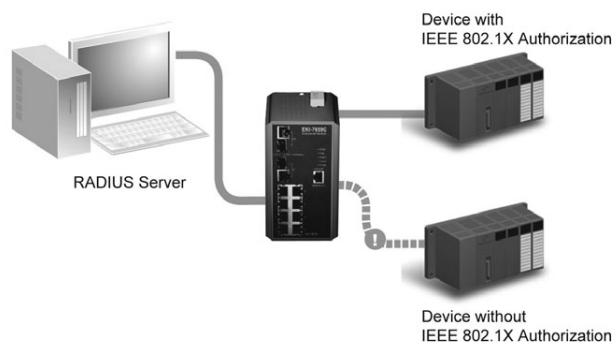
MAC Filtering - Security Gate Control

Advantech's EKI series provides specific gate controls for each individual port to improve network security. Only the packets from authorized MAC addresses are allowed to pass through the switch. Through the use of this defense mechanism, it is possible to limit access to authorized devices only.



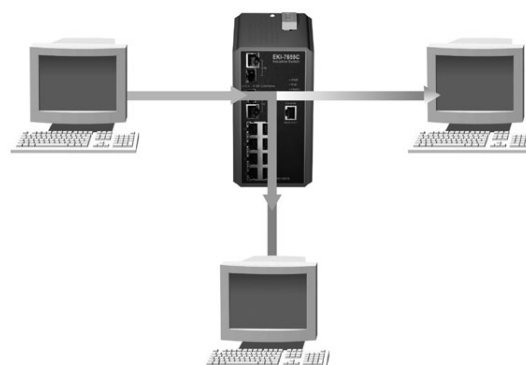
IEEE 802.1x – Advanced Security Authentication

Advantech's EKI series provides advanced security authentication, IEEE 802.1x, to manage the authorized users who allowed by RADIUS (Remote Authentication Dial In User Service) Server to access through the switch.



Port Mirroring

Advantech's EKI series can use port mirroring to investigate network packets and monitor network traffic. It is very useful for checking and detecting the status of network environment.



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14	Mobile Computers
15	IPC Peripherals
16	DAQ
17	Signal Conditioning
18	USB DAQ

Industrial Ethernet Product Selection Guide

Managed Ethernet Switches



Model Name		EKI-4654R	EKI-6558TI/ 6559TMI	EKI-7758F
Description		24+2 SFP Port Gigabit Managed Redundant Industrial Ethernet Switch	8-port M12 + 2-port Fiber Optic IP67 Managed Industrial Ethernet Switch with Wide Temperature	4G+4SFP Gigabit Managed Redundant Industrial Ethernet Switch
Interface	Ports Number	26	8/10	8
	10/100Base-T(X)	24	8/8	-
	100BaseFX	-	0/2	-
	10/100/1000Base-T(X)	-	-	4
	1000Base-SX/LX/LHX/XD/ZX/EZX	2	-	4
	PoE (10/100Mbps)	-	-	-
	PoE (10/100/1000Mbps)	-	-	-
	DI/DO	-	-	-
Network Management	Console	V	V	V
	Redundancy	V	V	V
	Diagnostics	V	V	V
	VLAN	V	V	V
	Configuration	V	V	V
	SNMP	V	V	V
Power	Security	V	V	V
	Traffic Control	V	V	V
	2 x Unregulated 12 ~ 48 V _{DC}	-	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	V	-	-
Mechanism	2 x Unregulated 100 ~ 240 V _{AC}	V	-	-
	Relay Output	V	V	V
	DIN-rail Mount	-	-	V
	Wallmount	-	V	V
Protection	Rack Mount	V	-	-
	IP30	V	IP67	V
	ESD (Ethernet)	V	V	V
	Surge (EFT for power)	V	V	V
Operating Temperature	Power Reverse	V	V	V
	-10 ~ 60 °C (14 ~ 140 °F)	-	-	V
	-40 ~ 75 °C (-40 ~ 167 °F)	-	V	-
	-40 ~ 85 °C (-40 ~ 185 °F)	V	-	-
Certifications	CE	V	V	V
	FCC	V	V	V
	UL/cUL 60950-1	V	-	V
	Class I, Division 2	-	-	V
	UL 508	-	V	-
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Selection Guide



EKI-7656C/CI	EKI-7659C/CI	EKI-7657C	EKI-7654C
16+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	8+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch	7+3G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch with 2 x DI/O	4+2G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch
18	10	10	6
16	8	7	4
-	-	-	-
2	2	3	2
2	2	3	2
-	-	-	-
-	-	-	-
-	-	2	-
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
-	-	-	-
-	-	-	-
V	V	V	V
V	V	V	V
V	V	V	V
-	-	-	-
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
V (EKI-7656CI)	V (EKI-7659CI)	-	-
-	-	-	-
V	V	V	V
V	V	V	V
V	V	V	V
V	-	V	-
-	-	-	-
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Industrial Ethernet Product Selection Guide

Managed Ethernet Switches



Model Name		EKI-7554SI/MI	EKI-7559SI/MI	EKI-7556MI	EKI-2748FI/CI	EKI-2548I/MI
Description		4+2 SC-type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	8+2 SC-type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	16+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature	6Gx+2 Combo Managed Ethernet Switch with Wide Temperature	8Tx Managed Ethernet Switch with Wide Temperature
Interface	Ports Number	6	10	18	8/8	8/8
	10/100Base-T(X)	4	8	16	-	8/6
	100BaseFX	2	2	2	-	0/2
	10/100/1000Base-T(X)	-	-	-	4/6	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	4/2	-
	PoE (10/100Mbps)	-	-	-	-	-
	PoE (10/100/1000Mbps)	-	-	-	-	-
	DI/DO	-	-	-	-	-
Network Management	Console	V	V	V	V	V
	Redundancy	V	V	V	V	V
	Diagnostics	V	V	V	V	V
	VLAN	V	V	V	V	V
	Configuration	V	V	V	V	V
	SNMP	V	V	V	V	V
	Security	V	V	V	V	V
	Traffic Control	V	V	V	V	V
Power	2 x Unregulated 12 ~ 48 V _{DC}	V	V	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-	-
	Relay Output	V	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V	V
	Wallmount	V	V	V	V	V
	Rack Mount	-	-	-	-	-
	IP30	V	V	V	V	V
Protection	ESD (Ethernet)	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V
	Power Reverse	V	V	V	V	V
Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)	-	-	-	V	V
	-40 ~ 75 °C (-40 ~ 167 °F)	V	V	V	-	-
	-40 ~ 85 °C (-40 ~ 185 °F)	-	-	-	-	-
Certifications	CE	V	V	V	V	V
	FCC	V	V	V	V	V
	UL/ UL 60950-1	V	V	-	-	-
	Class I, Division 2	-	V	V	V	-
	UL 508	-	-	V	V	V
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Media Converters



Model Name		EKI-2741F/SX/LX/LXI	EKI-2541M/S
Description		10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters	10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters
Interface	Ports Number	2	2
	10/100Base-T(X)	-	1
	100BaseFX	-	1
	10/100/1000Base-T(X)	1	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	1	-
	PoE (10/100Mbps)	-	-
	PoE (10/100/1000Mbps)	-	-
	DI/DO	-	-
Network Management	Console	-	-
	Redundancy	-	-
	Diagnostics	-	-
	VLAN	-	-
	Configuration	-	-
	SNMP	-	-
	Security	-	-
	Traffic Control	-	-
Power	2 x Unregulated 12 ~ 48 V _{DC}	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-
	Relay Output	V	V
Mechanism	DIN-rail Mount	V	V
	Wallmount	V	V
	Rack Mount	-	-
	IP30	V	V
Protection	ESD (Ethernet)	V	V
	Surge (EFT for power)	V	V
	Power Reverse	V	V
Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)	V	V
	-40 ~ 75 °C (-40 ~ 167 °F)	V (EKI-2741LXI)	V (EKI-2541MI/EKI-2541SI)
	-40 ~ 85 °C (-40 ~ 185 °F)	-	-
Certifications	CE	V	V
	FCC	V	V
	UL/ UL 60950-1	V	V
	Class I, Division 2	V	V
	UL 508	-	-
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Unmanaged Ethernet Switches



Model Name		EKI-4524I/RI/ARI	EKI-7526I/MI	EKI-7529MI/ST	EKI-7626C/CI	EKI-7629C/CI	EKI-2728MI
Description		24+2 SFP Port Ethernet Switch w/Wide Temp	16+2 SC Type Fiber Optic Unmanaged Industrial Ethernet Switch with Wide Temperature	8+2 Multi-mode Fiber Optic Industrial Unmanaged Ethernet Switch with Wide Temperature	16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	6G+2G Multi-mode Unmanaged Ethernet Switch with Wide Temperature
Interface	Ports Number	24/26/26	16/18	10	18	10	8
	10/100Base-T(X)	24	16/16	8	16	8	-
	100BaseFX	0/2/2	0/2	2	-	-	-
	10/100/1000Base-T(X)	-	-	-	2	2	6
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	2	2	2
	PoE (10/100Mbps)	-	-	-	-	-	-
	PoE (10/100/1000Mbps)	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-
Network Management	Console	-	-	-	-	-	-
	Redundancy	-	-	-	-	-	-
	Diagnostics	-	-	-	-	-	-
	VLAN	-	-	-	-	-	-
	Configuration	-	-	-	-	-	-
	SNMP	-	-	-	-	-	-
	Security	-	-	-	-	-	-
	Traffic Control	-	-	-	-	-	-
Power	2 x Unregulated 12~ 48 V _{DC}	EKI-4524ARI (Single Input)	V	V	V	V	V
	1 x Unregulated 100 ~ 240 V _{DC}	EKI-4524RI	-	-	-	-	-
	1 x Unregulated 100 ~ 240 V _{AC}	EKI-4524I/RI	-	-	-	-	-
	Relay Output	V	V	V	V	V	V
Mechanism	DIN-rail Mount	-	V	V	V	V	V
	Wallmount	-	V	V	V	V	V
	Rack Mount	V	-	-	-	-	-
	IP30	V	V	V	V	V	V
Protection	ESD (Ethernet)	V	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V	V
	Power Reverse	V	V	V	V	V	V
Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)	-	-	-	V	V	V
	-40 ~ 75 °C (-40 ~ 167 °F)	-	V	V	-	-	-
	-40 ~ 85 °C (-40 ~ 185 °F)	V	-	-	-	-	-
Certifications	CE	V	V	V	V	V	V
	FCC	V	V	V	V	V	V
	UL/ UL 60950-1	-	-	-	V	V	-
	Class I, Division 2	-	V	V	-	-	V
	UL 508	V	V	V	-	-	V
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Selection Guide

Unmanaged Ethernet Switches



Model Name		EKI-2725/2728	EKI-2525/2528	EKI-2525M	EKI-2526M/S
Description		5/8-port Gigabit Unmanaged Industrial Ethernet Switch	5/8-port Unmanaged Industrial Ethernet Switch	4+1 100FX Port Multi-mode Unmanaged Industrial Ethernet Switch	4+2 100FX Port Multi-mode/Single-mode Industrial Ethernet Switch
Interface	Ports Number	5/8	5/8	5	6
	10/100Base-T(X)	-	5/8	4	4
	100BaseFX	-	-	1	2
	10/100/1000Base-T(X)	5/8	-	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-
	PoE (10/100Mbps)	-	-	-	-
	PoE (10/100/1000Mbps)	-	-	-	-
	DI/DO	-	-	-	-
	Console	-	-	-	-
Network Management	Redundancy	-	-	-	-
	Diagnostics	-	-	-	-
	VLAN	-	-	-	-
	Configuration	-	-	-	-
	SNMP	-	-	-	-
	Security	-	-	-	-
Power	Traffic Control	-	-	-	-
	2 x Unregulated 12~48 V _{DC}	V	V	V	V
	2 x Unregulated 100 ~ 240 V _{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-	-
Mechanism	Relay Output	V	V	V	V
	DIN-rail Mount	V	V	V	V
	Wallmount	V	V	V	V
	Rack Mount	-	-	-	-
	IP30	V	V	V	V
Protection	ESD (Ethernet)	V	V	V	V
	Surge (EFT for power)	V	V	V	V
	Power Reverse	V	V	V	V
Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)	V	V	V	V
	-40 ~ 75 °C (-40 ~ 167 °F)	-	V (EKI-2525)/ (EKI-2528I)	-	-
	-40 ~ 85 °C (-40 ~ 185 °F)	-	-	-	-
Certifications	CE	V	V	V	V
	FCC	V	V	V	V
	UL/ UL 60950-1	V	V	V	V
	Class I, Division 2	V	V	V	V
	UL 508	-	-	-	-
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Industrial Ethernet Product Selection Guide

PoE Switches



Model Name		EKI-7659CPI	EKI-2525P	EKI-2525SPI
Description		8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature	5-port Industrial PoE Switch	5-port Industrial PoE Switch with 1x100Fx Single-Mode and Wide Temperature
Interface	Ports Number	10	5	5
	10/100Base-T(X)	-	1	-
	100BaseFX	-	-	1
	10/100/1000Base-T(X)	-	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	2	-	-
	PoE (10/100Mbps)	8	4	4
	M12 Connector (10/100 Mbps)	-	-	-
	DI/DO	-	-	-
	Console	V	-	-
Network Management	Redundancy	V	-	-
	Diagnostics	V	-	-
	VLAN	V	-	-
	Configuration	V	-	-
	SNMP	V	-	-
	Security	V	-	-
	Traffic Control	V	-	-
Power	2 x Unregulated 12 ~ 48 V _{DC}	48 V _{DC}	48 V _{DC}	48 V _{DC}
	2x Unregulated 100 ~ 240 V _{DC}	-	-	-
	2 x Unregulated 100 ~ 240 V _{AC}	-	-	-
	Relay Output	V	V	V
Mechanism	DIN-rail Mount	V	V	V
	Wallmount	V	V	V
	Rack Mount	-	-	-
	IP30	V	V	V
Protection	ESD (Ethernet)	V	V	V
	Surge (EFT for power)	V	V	V
	Power Reverse	V	V	V
Operating Temperature	-10 ~ 60 °C (14 ~ 140 °F)	-	V	-
	-40 ~ 75 °C (-40 ~ 167 °F)	V	-	V
	-40 ~ 85 °C (-40 ~ 185 °F)	-	-	-
Certifications	CE	V	V	V
	FCC	V	V	V
	UL/ UL 60950-1	V	V	V
	Class I, Division 2	-	-	-
	UL 508	-	-	-
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Selection Guide



EKI-2526PI	EKI-2525PA	EKI-2528PAI	EKI-2701PSI
6-port Industrial PoE Switch with Wide Temperature	5-Port Industrial PoE Switch with 24/48 V _{DC} Power Input	8-port Industrial PoE Switch with 24/48 V _{DC} Power Input and Wide Temperature	Industrial PoE Splitter with Wide Temperature
6	5	8	2
2	1	4	1
-	-	-	-
-	-	-	1
-	-	-	-
4	4	4	1
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
48 V _{DC}	24/48 V _{DC}	24/48 V _{DC}	V (44~57 V _{DC})
-	-	-	-
-	-	-	-
V	V	V	-
V	V	V	V
V	V	V	V
-	-	-	-
V	V	V	V
V	V	V	V
V	V	V	V
V	V	V	V
-	V	-	-
V	-	V	V
-	-	-	-
V	V	V	V
V	V	V	V
V	V	V	V
-	-	-	-
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Industrial Ethernet Product Selection Guide

Wireless Access Points/Client Bridges



Model Name		EKI-6311GN	EKI-6321AG	EKI-6322AG	EKI-6323AG	EKI-6311G
Description		IEEE 802.11 b/g/n Wireless Access Point/Client Bridge	802.11a/b/g Single Radio Outdoor Wireless Access Point	802.11a/b/g dual Radio Outdoor Wireless Access Point	802.11a/b/g triple Radio Outdoor Wireless Access Point	802.11 b/g Wireless Access Point/Client Bridge
Interface	IEEE 802.11b/g	V	V	V	V	V
	IEEE 802.11a	-	V	V	V	-
	IEEE 802.11n	V	-	-	-	-
	10/100Base-T(X)	V	V	V	V	V
	10/100/1000Base-T(X)	-	-	-	-	-
	RF Connector Type	N/ RSMA	N-type	N-type	N-type	RSMA
RF	RF Connector	1	1	2	3	2
	Transmit Output Power	802.11b: 26dBm 802.11g: 26dBm 802.11gn 26dBm	802.11b mode: 17dBm 802.11g mode: 17dBm 802.11a mode: 15dBm	802.11b mode: 17dBm 802.11g mode: 17dBm 802.11a mode: 15dBm	802.11b mode: 17dBm 802.11g mode: 17dBm 802.11a mode: 15dBm	17dBm ± 2
RF	Receive Sensitivity	802.11b: -93dBm 802.11g: -89dBm 802.11n HT20: -88dBm 802.11n HT40: -84dBm	802.11b Sensitivity: -93dBm 802.11g Sensitivity: -89dBm 802.11a Sensitivity: -88dBm	802.11b Sensitivity: -93dBm 802.11g Sensitivity: -89dBm 802.11a Sensitivity: -88dBm	802.11b Sensitivity: -93dBm 802.11g Sensitivity: -89dBm 802.11a Sensitivity: -88dBm	802.11b: -96dBm 802.11g: -76dBm
Operation mode	Access Point	V	V	V	V	V
	Client Bridge	V	V	V	V	V
	Mesh	-	V	V	V	-
	Mobility	-	V	V	V	-
	Security	V	V	V	V	V
Power	PoE (48V)	-	V	V	V	V
	PoE (12V)	V	-	-	-	-
Mechanism	Wall mount	V	V	V	V	V
	DIN- rail mount	-	-	-	-	-
	Pole mount	V	V	V	V	V
	IP protection grade	IP65	IP67	IP67	IP67	IP65
Operating temperature	-20 ~70 °C (-4 ~ 158 °F)	V	-	-	-	-
	-10 ~60 °C (14 ~ 140 °F)	-	-	-	-	V
	-40 ~70 °C (-40 ~158 °F)	-	V	V	V	-
Certification	CE	V	V	V	V	V
	FCC	V	V	V	V	V
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EKI-6311GN

IEEE 802.11 b/g/n Wireless Access Point/Client Bridge

NEW

 RoHS COMPLIANT DESIGN
 CE FCC

Features

- Compliant with IEEE802.11b/g/n
- IP65 waterproof certification
- Embedded 8dBi directional antenna with external N-type connector for optional antenna
- High output power 600mW
- Passive 12V PoE
- Support distances up to 5Km
- WEP/WPA/WPA2/ IEEE 802.1 x authentication support
- Spanning Tree and IGMP snooping protocol support

Introduction

EKI-6311GN is a feature rich wireless AP/ CPE which provides a reliable wireless connectivity for industrial environments. The PoE injector enhances flexibility in deployment of this AP/ CPE even where the DC power supply is hard to fulfill. As an 802.11n compliant device, EKI-6311GN provides 3 times higher data rates than legacy 802.11g devices. With the support of STP, WMM and IGMP snooping protocols, EKI-6311GN effectively improves the reliability of wireless connectivity, especially in applications that need high reliability and high throughput data transmission. To secure wireless connections, EKI-6311GN encrypts data through 64/128/152-bit WEP data encryption and also supports WPA2/WPA/802.1x for powerful security authentication.

Specifications

Standard Support

- Wireless** IEEE802.11b/g/n (IEEE802.11n draft v 2.0)
- Ethernet** IEEE802.3u MDI / MDIX 10/100 Fast Ethernet
- LAN** IEEE802.11b/g wireless LAN interface
IEEE 802.11n draft wireless LAN standard
Passive 12V PoE, max. distance: 50 meters
US FCC Part 15 Class B & C & E
Europe ETSI 300 328, ETSI 301 489-1&17, EN 60950 compliant and CE Mark
- Certifications** 802.11b 11, 5.5, 2, 1 Mbps, auto-fallback, 802.11a/g 54, 48, 36, 24, 18, 12, 9, 6 Mbps, auto-fallback
- Data Rates** 6M, 6.5M, 13M, 13.5M, 19.5M, 26M, 27M, 39M, 40.5M, 53M, 54M, 58.5M, 65M, 78M, 81M, 104M, 108M, 117M, 121.5M, 130M, 135Mbps
- 802.11n:**

Physical Specifications

- Power** DC 12Volt / 1.0A; AC Adapter 100V~240V
- Dimensions (L x W x H)** 228 x 64 x 61 mm
- Weight** 500g

Environment

- Operating Temp.** Non Heater : -20 ~ 70° C (-4 ~ 158° F)
- Storage Temperature** -30 ~ 80° C (-22 ~ 176° F)
- Humidity** 10% ~ 95% non-condensing

Interface Operation Modes

- Access Point (AP) / Customer Premise Equipment (CPE)

Antenna

- Antenna Configuration** 1x1 (1 Tx, 1 Rx)
- Default embedded 8dBi directional antenna (Vertical-Pol)
- Reserve N-type Connector (Plug) *Switchable by SW
- Equipped N-to-RSMA adaptor and 5dBi dipole antenna for indoor AP application.

Other Features

- Telnet, FTP, SNMP, Password Changes, Firmware updates, Configuration Files
- Radio on/off, WMM/Regatta Mode, Output Power Control, Fragmentation Length, Beacon Interval
- RTS/CTS threshold, DTIM Interval

Modulation Techniques

- 802.11a** OFDM(BPSK, QPSK, 16-QAM, 64-QAM)
- 802.11b** DSSS (DBPSK, DQPSK, CCK)
- 802.11g** OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

Channel Support

- 802.11b/g/n** UHT20
- FCC: CH1 ~ CH11; ETSI: CH1 ~ CH13
- HT40
- 802.11gn** FCC: CH3 ~ CH9; ETSI: CH3 ~ CH11

Wireless Transmission Rates

- Transmitted Power** 802.11b: 26dBm
802.11g: 26dBm @ 6Mbps, 24dBm @ 54Mbps
802.11gn HT20: 26dBm @ MCS0, 22dBm @ MCS7
802.11gn HT40: 26dBm @ MCS0, 21dBm @ MCS7

Receiver Sensitivity

- 802.11b Sensitivity** -93dBm @ 1Mbps; -88dBm @ 11Mbps
- 802.11g Sensitivity** -89dBm @ 6Mbps; -73dBm @ 54Mbps
- 802.11n HT20** -88dBm @ MCS0; -70dBm @ MCS7
- 802.11n HT40** -84dBm @ MCS0; -67dBm @ MCS7

Ordering Information

- EKI-6311GN** 802.11 b/g/n Wireless Access Point/Client Bridge(US)
- EKI-6311GN-EU** 802.11 b/g/n Wireless Access Point/Client Bridge(EU)

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EKI-6321AG

EKI-6322AG

EKI-6323AG

802.11a/b/g Single Radio Outdoor Wireless Access Point

802.11a/b/g Dual Radio Outdoor Wireless Access Point

802.11a/b/g Triple Radio Outdoor Wireless Access Point



Features

- IEEE 802.11 a/b/g compatible
- IEEE 802.3 af Power over Ethernet (PoE) support
- Long operating range (up to 33Km)
- Ultra-Roaming (Handover between AP nodes <10ms) enables seamless wireless connectivity
- Daisy Chain Mesh (Low latency, high throughput)
- Point-to-Point, Point-to-Multipoint wireless connectivity in Bridge mode
- Smart Traffic Load Balance, Wireless failover redundancy (EKI-6322AG, EKI-6323AG)

Introduction

EKI-6321AG, EKI-6322AG and EKI-6323AG are perfectly ideal wireless solutions for outdoor long range deployment, ultra fast roaming and reliable and robust wireless infrastructure. All of them provide 5GHz/ 2.4GHz dual band radio functionality with clean and highly reliable wireless point-to-point (PTP) or point-to-multipoint (PTMP) performance for distant locations. The low latency and high throughput over multiple wireless hops greatly enable the extension of network coverage. Comprehensive security features provide the benefits of secure and flexible installation for wireless deployment. IP68 sturdy waterproof housing and enhanced thermal design even extends excellent performance to all harsh outdoor environments.

Specifications

Standard Support

- **Wireless** IEEE802.11a, IEEE802.11b/g
- **Ethernet** IEEE802.3, IEEE802.3u, IEEE802.3af
- **Certifications** US FCC Part 15 Class B & C & E
Europe ETSI 300 328, ETSI 301 489-1&17,
ETSI 301 893 ,EN 60950 compliant and CE Mark
- **Data Rates** 802.11b 11, 5.5, 2, 1 Mbps, auto-fallback,
802.11a/g 54, 48, 36, 24, 18, 12, 9, 6 Mbps,
auto-fallback

Physical Specifications

- **Power** DC 48Volt / 0.8A; AC Adapter 100V~240V
Supports Power over Ethernet (PoE)
- **Dimensions (L x W x H)** 226 x197 x 79 mm
- **Weight** 1600g

Environment

- **Operating Temp.** -40 ~70° C (-40 ~158° F)
- **Storage Temperature** -40 ~ 80° C (-40 ~ 176° F)
- **Humidity** 0% ~ 95% non-condensing

Interface Operation Modes

- Access Point (AP) / Wireless Station (AP Client)

System Operation Mode

- Bridge / Transparent Bridge / Router

Other Features

- DHCP Client/Server, Statistic routing table, RIP v1&v2, MS NetBIOS IP Filter
Enable/Disable, 802.11h- Dynamic Frequency Selection (DFS)

Modulation Techniques

- **802.11a** OFDM(BPSK, QPSK, 16-QAM, 64-QAM)
- **802.11b** DSSS (DBPSK, DQPSK, CCK)
- **802.11g** OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

Channel Support

- **802.11b/g** US/Canada: 11 (1~11)
Europe: 13 (1~13); France: 4 (10~13)
Japan: 11b: 14 (1~13 or 14th), 11g:13(1~13)
China: 13 (1~13)
- **802.11a** US/Canada: 12 non-overlapping channels
(5.15~5.35GHz, 5.725~5.825GHz)
Europe1: 19 non-overlapping channel (5.15~ 5.35GHz,
5.47~5.725GHz, 5.745~5.825GHz)
Japan: 4 non-overlapping channels (5.15 ~ 5.25GHz)
China : 5 non-overlapping channels (5.725 ~ 5.85GHz)

Wireless Transmission Rates

- **802.11b** 11, 5.5, 2, 1 Mbps, auto-fallback,
- **802.11a/g** 54, 48, 36, 24, 18, 12, 9, 6 Mbps, auto-fallback
- **Transmitted Power** 802.11b mode: 17dBm
802.11g mode: 17dBm @ 6Mbps, 15dBm @ 54Mbps
802.11a mode: 15dBm @ 6Mbps, 13dBm @ 54Mbps

Receiver Sensitivity

- **802.11b Sensitivity** -93dBm @ 1Mbps; -88dBm @ 11Mbps
- **802.11g Sensitivity** -89dBm @ 6Mbps; -77dBm @ 48Mbps;
-72dBm @ 54Mbps
- **802.11a Sensitivity** -88dBm @ 6Mbps; -76dBm @ 48Mbps;
-71dBm @ 54Mbps

Ordering Information

- **EKI-6321AG** 802.11a/b/g Single Radio Outdoor Wireless AP(US)
- **EKI-6321AG-EU** 802.11a/b/g Single Radio Outdoor Wireless AP(EU)
- **EKI-6322AG** 802.11a/b/g Dual Radio Outdoor Wireless AP(US)
- **EKI-6322AG-EU** 802.11a/b/g Dual Radio Outdoor Wireless AP(EU)
- **EKI-6323AG** 802.11a/b/g Triple Radio Outdoor Wireless AP(US)
- **EKI-6323AG-EU** 802.11a/b/g Triple Radio Outdoor Wireless AP(EU)

EKI-6311G

802.11 b/g Wireless Access Point/Client Bridge



Features

- IEEE 802.11 b/g compatible
- IEEE 802.3 af Power over Ethernet (PoE) support
- High speed data rates (up to 54 Mbps)
- Output power up to 19dBm (80mW)
- Point-to-Point, Point-to-Multipoint wireless connectivity
- WEP/WPA/WPA2/ IEEE 802.1x authentication support
- WDS (Wireless Distribution System) support
- IP65 compliance protects against dust and water
- Multi-SSID (up to 4 SSID) support

Introduction

EKI-6311G features enhanced wireless transmission capabilities to provide a reliable wireless environment for industrial building systems. Moreover, a detachable antenna can collocate with any high gain antenna to enhance wireless connections even further. To protect wireless connections, EKI-6311G can encrypt transmissions through 64/128-bit WEP data encryption and also supports WPA2/WPA/802.1x for powerful security authentication.

Specifications

General

- **Chipset** Atheros solution
- **Data Rates** 802.11 b: 1, 2, 5.5, 11Mbps
802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps
- **Standards** IEEE802.11 b/g, IEEE802.1x, IEEE802.3, IEEE802.3u
- **Certifications** IP65, FCC Part 15B
CE EN60950/EN300328/EN301489-1-17

RF Information

- **Frequency Band** 2.400 ~ 2.484 GHz
- **Media Access Protocol** Carrier sense multiple access with collision avoidance (CSMA/CA)
- **Modulation Technology**
 - 802.11b: Direct-Sequence Spread Spectrum (DSSS)
DBPSK @ 1Mbps
DQPSK @ 2Mbps
CCK @ 5.5 and 11Mbps
 - 802.11g: Orthogonal Frequency Division Multiplexing (OFDM)
BPSK @ 6 and 9 Mbps
QPSK @ 12 and 18 Mbps
6-QAM @ 24 and 36 Mbps
64-QAM @ 48 and 54 Mbps
- **Receive Sensitivity** 2.412~2.472G (IEEE802.11g)
-92dBm@6Mbps
-76dBm@54Mbps
2.412 ~ 2.472G (IEEE802.11b)
-92dBm@11Mbps
-96dBm@1Mbps
- **Transmit Output Power** IEEE802.11g: 14dBm+-2 (Typical)
IEEE802.11b: 17dBm+-2
- **Antennas** 5dBi dipole antenna x 2 (external)
- **RF Connector** SMA female

Power

- **Power Consumption** Max. 12 W
- **Power Input** Active Ethernet (Power over Ethernet): 48 V_{dc}/0.375A

Networking Information

- **Topology** Infrastructure, Ad-hoc
- **Operation Mode** Point-to-Point/ Point-to-Multipoint AP/Client Bridge/ WDS Repeater
- **Interface** 1 x 10/100 Mbps RJ-45 LAN Port (Auto Switch)
- **Security** IEEE802.1x / RADIUS Client (EAP-MD5/TLS/TTLS, PEAP) Support in AP Mode
IEEE802.1x Supplicant (EAP-MD5/TLS/TTLS, PEAP) support in Client Bridge Mode
WEP 64/128 bits
WPA/WPA2 Personal
PSK (Pre Share Key) with TKIP/AES
WPA/WPA2 Enterprise
EAP-MD5/TLS/TTLS authenticator with TKIP/AES
MAC address filtering
Layer2 Isolation
VLAN tunneling support
Hide SSID in beacons
DHCP client/server
- **IP Auto-configuration**

Management

- **Remote Configuration** Web-based configuration (HTTP)
Telnet configuration
- **Firmware Upgrade** Upgrade firmware via web-browser

Physical

- **Dimensions (L x W x H)** 209.1 x 165.4 x 61.5 mm
- **Weight** 500g

Environment

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

Ordering Information

- **EKI-6311G** 802.11b/g Wireless AP/Client Bridge (US)
- **EKI-6311G-EU** 802.11b/g Wireless AP/Client Bridge (EU)

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EKI-4654R

24 x 10/100Base-T Copper Ports + 2 x 1000Base SFP Ports



Features

- IEC61850-3 & IEEE 1613 compliant
- 1U 19" rack mount
- 2 x 1000Base SFP ports, plus 24 Fast Ethernet ports
- Redundancy: X-Ring (ultra high-speed recovery time < 10 ms), RSTP/ STP (802.1w/1D)
- Fully integrated, dual-redundant power supply: 2 x 100 ~ 240 V_{AC}/100 ~ 240 V_{DC}
- Fanless design
- Front panel LEDs simplify the monitoring and management
- Rear-end wiring with LED indicator
- Wide operating temperature from -40 ~ 85° C

Introduction

EKI-4654R is compliant with the IEC61850-3 & IEEE 1613 certifications for power automation systems and supports 24 Fast Ethernet ports and 2 x 1000Base SFP slots for different SFP modules for various application. EKI-4654R has long range voltage redundancy power input which provides convenient and uninterrupted power supply. EKI-4654R also supports many advanced network standards to optimize 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** 10/100Base-T(X), Optional 1000Base-SX/LX/LHX/XD/ZX/EZX
- **Transmission Distance** Ethernet: Up to 100m (4- wire Cat.5e)
SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Copper: 10/100 Mbps, Auto-Negotiation
Fiber: Up to 1000 Mbps

Interface

- **Connectors** 24 x RJ-45 (Ethernet) or 12 x SC type fiber connector + 8 x RJ-45 (Ethernet)
2 x SFP (mini-GBIC) ports + 6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR, PWR1, PWR2, PWR3, R.M., P-Fail
10/100 T(X): Link/Activity, Duplex/CollisionGigabit
Copper: Link/Activity, Speed
SFP: Link/Activity
- **Console** RS-232 (RJ-45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMP v1/v2c/v3, Port Speed/Duplex Configuration
- **VLAN** IEEE 802.1Q, VRRP, Port-based VLAN
- **Redundancy** Advantech X-Ring (Recovery time < 10ms at 30 pcs 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
- **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)** 440 x 44 x 280 mm
- **Mounting** 1U 19" Rack mount

Power

- **Power Consumption** Max. 36 W
- **Power Input** 2 x 100 ~ 240 V_{AC}/100 ~ 240 V_{DC} (Redundancy)
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** Present
- **Overload** 3.15 A @ 110 V (Fuse)

Environment

- **Operating Temperature** -40 ~ 85° C (-40 ~ 185° 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

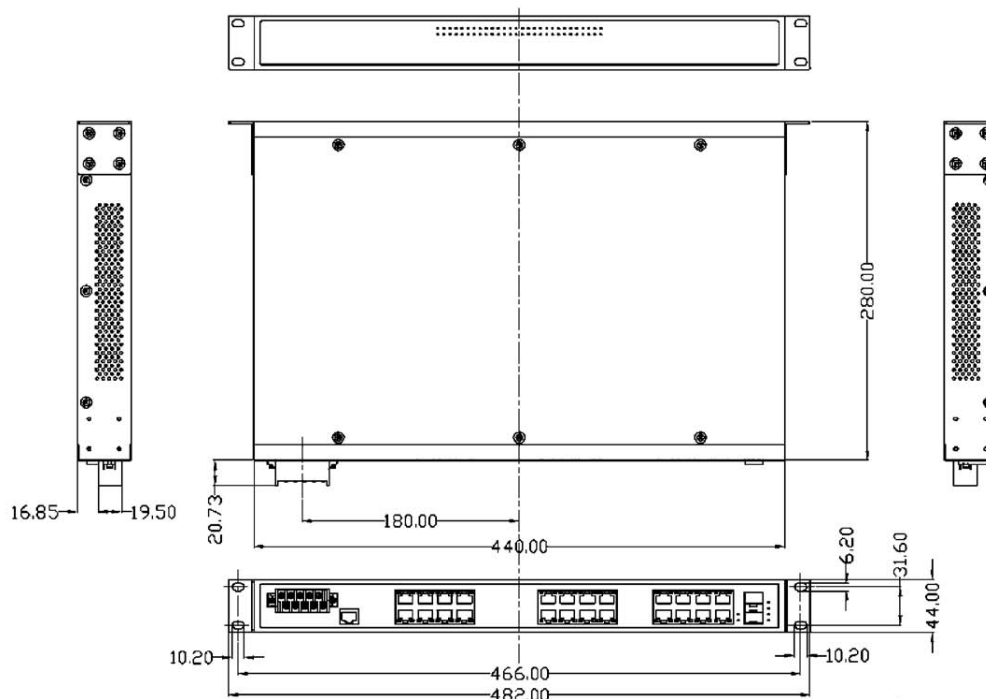
- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-2/3, EN55024, IEC61000-4-2/3/4/5/6/8, EN61000-6-2/4
IEC60068-2-27
IEC60068-2-32
IEC60068-2-6
IEC61850-3, IEEE 1613
- **Shock**
- **Freefall**
- **Vibration**
- **Substation**

Ordering Information

- **EKI-4654R** 24+2 SFP Managed Redundant Ethernet Switch

EKI-4654R**Dimensions**

Unit: mm

**Physical Specifications****EKI-4654R (26 ports)**

24 x 10/100Base-T copper ports + 2 x 1000Base SFP ports

▪ **Front View**▪ **Rear View**

- **Dimensions:** 440 mm (W) x 280 mm (D) x 44 mm (H)

EKI-4654R/12S (20+ 2 SFP ports)

8 10/100Base-T copper + 12 100FX Single-Mode + 2 x 1000Base SFP ports.

EKI-4654R/12M (20+ 2 SFP ports)

8 10/100Base-T copper + 12 100FX Multi-Mode + 2 x 1000Base SFP ports.

Front View



Rear View



- **Dimensions:** 440 mm (W) x 280 mm (D) x 44 mm (H)

Ordering Information

- **EKI-4654R** 24+2 SFP Managed Redundant Ethernet Switch
- **EKI-4654R/12S** 20+2 SFP Managed Redundant Ethernet Switch
- **EKI-4654R/12M** 20+2 SFP Managed Redundant Ethernet Switch

EKI-6558TI

EKI-6559TMI

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

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

NEW



EKI-6558TI

EKI-6559TMI



Introduction

EKI-6558TI and EKI-6559TMI are cost effective IP67 grade industrial switches. M12 connectors secure highly reliable connectivity for industrial communication applications. EKI-6559TMI provides two additional fiber optic ports to extend communication range. Both EKI-6558TI and EKI-6559TMI provide Advantech's X-Ring protocol, which enables users to establish a redundant Ethernet network with ultra high-speed recovery (less than 10ms). They also support advanced network standards to optimize network performance, reduce maintenance cost, and secure network safety.

Specifications

Communications

- **Standard** IEEE802.3, IEEE802.3u, IEEE802.3x, IEEE802.3ad, IEEE802.1d, IEEE802.1w, IEEE802.1p, IEEE802.1Q, IEEE802.1x
- **LAN** 10/100Base-T(X), 100Base-FX
- **Transmission Speed** Up to 100Mbps

Interface

- **Ethernet** M12, 4-pole D-coded, Female x 8
- **Fiber Optic** LC type waterproof x 2
- **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
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **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
- **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
- **Mounting** Wallmount

Features

- Backplane (Switching Fabric): 2 Gbps
- Supports X-Ring function (ultra high-speed recovery time <10ms)
- 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 100Mbps LC type connector

Power

- **Power Consumption** 8.1W Max. @ 48 V_{DC}
- **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)

Certifications

- **Safety** UL 508
- **EMC** EU: EN55011, EN61000-6-4
EN55022 Class A
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-6558TI** 8-port M12 IP67 Managed Ethernet Switch
- **EKI-6559TMI** 8-port M12 + 2 Fiber IP67 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 (ultra high-speed recovery time < 10ms), 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
- 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 10 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, 100Base-T(X), 10/100Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- **LAN**
- **Transmission Distance** Ethernet : Up to 100m (4- wire Cat.5e, Cat.6 RJ-45 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 RJ-45 (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
RS-232 (RJ-45)
- **Console**

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **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
- **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
- **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** 3.5 A @ 12 V_{DC} (Fuse)

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
- **EMC** EU: EN55011, EN61000-6-4, EN55022 Class A, EN55024, IEC61000-4-2/3/4/5/6/8, EN61000-6-2
IEC60068-2-27
IEC60068-2-32
IEC60068-2-6
- **Shock**
- **Freefall**
- **Vibration**

Ordering Information

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

1
Operator Panels

2
Fanless Panel PCs

3
Panel Computers

4
Display Solutions

5
Ethernet Switches

6
Device Servers

7
Serial Comm. Cards

8
Video Surveillance

9
Pre-Configured Systems

10
IPC Chassis

11
SBCs and Backplanes

12
Industrial Motherboards

13
Embedded IPCs

14
Mobile Computers

15
IPC Peripherals

16
DAQ

17
Signal Conditioning

18
USB DAQ

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 (ultra high-speed recovery time < 10 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, 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 ~ 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 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, 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 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, 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
- 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
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
- Traffic Control**

Mechanism

- Enclosure** IP30, metal shell with solid mounting kits
- Dimensions (W x H x D)** 79 x 152 x 105 mm
- 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** 3.5 A @ 12 V_{DC} (Fuse)

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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 Giga Managed Ethernet Switch
- EKI-7656CI** 16+2G Giga 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 (ultra high-speed recovery time < 10ms), 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, 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 ~ 75° C (EKI-7659CI)

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 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-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/LH/XD/ZX/EZX
- Transmission Distance** Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000 Mbps

Interface

- Connectors** 8 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
10/100T(X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000Mbps)
SFP: Link/Activity
- Console** RS-232 (RJ-45)

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- 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
- 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
- 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** 3.5 A @ 12 V_{DC} (Fuse)

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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** 284,409 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-7659C** 8+2G Giga Managed Ethernet Switch
- EKI-7659CI** 8+2G Giga Managed Ethernet Switch w/Wide Temp

1
Operator Panels

2
Fanless Panel PCs

3
Panel Computers

4
Display Solutions

5
Ethernet Switches

6
Device Servers

7
Serial Comm. Cards

8
Video Surveillance

9
Pre-Configured Systems

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IPC Chassis

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SBCs and Backplanes

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Industrial Motherboards

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Embedded IPCs

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Mobile Computers

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IPC Peripherals

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DAQ

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Signal Conditioning

18
USB DAQ

EKI-7657C

7+3G Combo Port Gigabit Managed Redundant Industrial Ethernet Switch with 2 x DI/O



Features

- 3 Gigabit Copper/SFP combo ports, plus 7 Fast Ethernet ports
- 2 Digital Inputs and 2 Digital Outputs for Events and Alarms in the Network
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring (ultra high-speed recovery time < 10ms), 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, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Operating temperature from -10 ~ 60° C

Introduction

EKI-7657C supports 7 Fast Ethernet ports and 3 Gigabit combo ports with 2 x Digital Input and Digital Output ports. To create reliability in your network, the EKI-7657C 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-7657C 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 RJ-45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000 Mbps

Interface

- Connectors** 7 x RJ-45 (Ethernet)
3 x RJ-45/SFP (mini-GBIC) combo ports
1 x 6-pin removable terminal (Power & Relay)
1 x 6-pin removable terminal (DI/DO)
- LED Indicators** System: PWR, PWR1, PWR2, R.M., P-Fail
10/100T(X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000Mbps)
SFP: Link/Activity
- Console** RS-232 (RJ-45)

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- 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
- 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
- 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** 3.5 A @ 12 V_{DC} (Fuse)

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
- 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-7657C** 7+3G Giga Managed Ethernet Switch w/2 x DI/O

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 (ultra high-speed recovery time < 10 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, SNMPv3 Diagnostic: Port Statistic, Port Mirroring, RMON, SNMP Trap, SMTP, Syslog
- 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 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-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 RJ-45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000Mbps

Interface

- Connectors** 4 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
10/100T(X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000Mbps)
SFP: Link/Activity
RS-232 (RJ-45)
- Console**

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- Redundancy** ADVANTECH X-Ring (Recovery time < 10 ms at 50pcs 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
- 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
- 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** 1.6A @ 12 V_{DC} (Re-settable Fuse)

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
- EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4 EN55022 Class A, EN61000-3-2/3 EN55024
IEC61000-4-2/3/4/5/6/8, EN61000-6-2/4
- Shock** IEC60068-2-27
- Freefall** IEC60068-2-32
- Vibration** IEC60068-2-6

Ordering Information

- EKI-7654C** 4+2G Gigabit Managed Ethernet Switch

EKI-7554SI/MI

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



Features

- 2 x SC type fiber ports, plus 4 Fast Ethernet ports
- Redundancy: X-Ring (high-speed recovery time<10ms), 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, 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

EKI-7554SI/MI supports 4 Fast Ethernet ports and 2 SC type Fiber ports. To create reliability in your network, the EKI-7554SI/MI come 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-7554SI/MI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications

- Standard** IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1d, IEEE802.1w, IEEE802.1p, IEEE802.1Q, IEEE802.1x
- LAN** 10/100Base-T(X), 100Base-FX
- Transmission Distance** Ethernet : Up to 100m
Multi-mode Fiber: Up to 2km (EKI-7554MI)
Single-mode Fiber: Up to 30km (EKI-7554SI)
- Transmission Speed** Up to 100Mbps

Interface

- Connectors** 4 x RJ-45 ports
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 (RJ-45)

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- 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
- 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
- Mounting** DIN-rail, wall

Power

- Power Consumption** Max. 7.7W
- Power Input** 12~ 48 V_{DC}, redundant dual inputs
- Fault Output** 1 Relay Output

Protection

- Power Reverse** Present
- Overload** 1.6A @ 12 V_{DC} (Resettable Fuse)

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** 284,409 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-7554SI** 4+2 SM Fiber Managed Ethernet Switch w/Wide Temp
- EKI-7554MI** 4+2 MM Fiber Managed Ethernet Switch w/Wide Temp

EKI-7559SI/MI

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



Features

- 2 x SC type fiber ports, plus 8 Fast Ethernet ports
- Redundancy: X-Ring (ultra high-speed recovery time<10ms), 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, 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

EKI-7559SI/MI supports 8 Fast Ethernet ports and 2 SC type fiber optic ports. To create reliability in your network, the EKI-7559SI/MI 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-7559SI/MI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications

- Standard** IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1d, IEEE802.1w, IEEE802.1x, IEEE802.1Q, IEEE802.1x
- LAN** 10/100Base-T(X), 100Base-FX
- Transmission Distance** Ethernet : Up to 100m
Multi-mode Fiber: Up to 2km (EKI-7559MI)
Single-mode Fiber: Up to 30km (EKI-7559SI)
- Transmission Speed** Up to 100Mbps

Interface

- Connectors** 8 x RJ-45 ports
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 (RJ-45)

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- 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 LACPRate 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
- Mounting** DIN-rail, wall

Power

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

Protection

- Power Reverse** Present
- Overload** 3.5 A @ 12 V_{DC} (Fuse) (EKI-7559MI/SI)

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** 284,409 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-7559SI** 8+2 SM Fiber Managed Ethernet Switch w/Wide Temp
- EKI-7559MI** 8+2 MM Fiber Managed Ethernet Switch w/Wide Temp

1	Operator Panels
2	Fanless Panel PCs
3	Panel Computers
4	Display Solutions
5	Ethernet Switches
6	Device Servers
7	Serial Comm. Cards
8	Video Surveillance
9	Pre-Configured Systems
10	IPC Chassis
11	SBCs and Backplanes
12	Industrial Motherboards
13	Embedded IPCs
14	Mobile Computers
15	IPC Peripherals
16	DAQ
17	Signal Conditioning
18	USB DAQ

EKI-7556MI

16+2 SC Type Fiber Optic Managed Industrial Ethernet Switch with Wide Temperature

NEW



Features

- 2 x SC type fiber ports, plus 16 Fast Ethernet ports
- Redundancy: X-Ring (ultra high-speed recovery time<10ms), 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, 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

EKI-7556MI supports 16 Fast Ethernet ports and 2 SC type fiber optic ports. To create reliability in your network, the EKI-7556MI 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-7556MI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications

- **Standard** IEEE802.3, IEEE802.3u, IEEE802.3z, IEEE802.3x, IEEE802.3ad, IEEE802.1d, IEEE802.1w, IEEE802.1p, IEEE802.1Q, IEEE802.1x
- **LAN** 10/100Base-T(X), 100Base-FX
- **Transmission Distance** Ethernet : Up to 100m
Multi-mode Fiber: Up to 2km
- **Transmission Speed** Up to 100Mbps

Interface

- **Connectors** 8 x RJ-45 ports
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 (RJ-45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **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
- **Diagnostics** Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, 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
- **Mounting** DIN-rail, Wall

Power

- **Power Consumption** Max. 10.75W
- **Power Input** 12~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

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** 218,490 hours

Certifications

- **Safety** UL 508, Class I, Division 2
- **EMC** EU: EN55011, EN61000-6-4
EN55022 Class A,
EN55024, IEC61000-4-2/3/4/5/6/8/11/12
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-7556MI** 16+2 MM Fiber Managed Ethernet Switch w/Wide Temp

EKI-2748FI EKI-2748CI

4Gx+4SFP Managed Ethernet Switch with Wide Temperature

6Gx+2 Combo Managed Ethernet Switch with Wide Temperature

NEW



EKI-2748FI



EKI-2748CI



Introduction

EKI-2748FI and EKI-2748CI supports Gigabit with Ethernet and SFP/Combo ports. 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-2748FI and EKI-2748CI 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, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
- LAN 100Base-T(X), 10/100Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- Transmission Speed Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
SFP: Up to 1000 Mbps

Interface

- Connectors RJ-45 x 4; SFP Combo: 100/1000 SFP * 4 (EKI-2748FI)
RJ-45 x 6; SFP Combo: RJ-45 x 2;
100/1000 Mini-GBIC x 2 (EKI-2748CI)
Console port : RJ45 x 1
- LED Indicators System: PWR, R.M., PWR1, PWR2, P-Fail
Gigabit Copper: Link/Activity, Speed
SFP: Link/Activity
- Console RS-232 (RJ-45)

Network Management

- Configuration Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN IEEE 802.1Q, GVRP, Port-based VLAN
- 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
- Diagnostics Port Mirroring, Real-time traffic statistic, MAC Address Table, SNMP, Syslog, E-Mail Alert, SNMP Trap, RMON

Features

- All Gigabit Ethernet ports for Copper and SFP/Combo interfaces
- SFP sockets for easy and flexible fiber expansion
- Redundancy: Gigabit X-Ring (ultra high-speed recovery time < 10ms), 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
- Diagnostic: Port statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Mechanism

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

Power

- Power Consumption 15.12 Watts max. @ 12 V_{DC}
13.3 Watts max. @ 24V_{AC} / 60Hz
- Power Input 12 ~ 48 V_{DC}, 24V_{AC} (18~30V_{AC})
- Fault Output 1 Relay Output

Protection

- Power Reverse 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 248,507 hours

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-2748FI 4Gx+4SFP Managed Ethernet Switch w/ Wide Temp
- EKI-2748CI 6Gx+2 Combo Managed Ethernet Switch w/Wide Temp

1	Operator Panels
2	Fanless Panel PCs
3	Panel Computers
4	Display Solutions
5	Ethernet Switches
6	Device Servers
7	Serial Comm. Cards
8	Video Surveillance
9	Pre-Configured Systems
10	IPC Chassis
11	SBCs and Backplanes
12	Industrial Motherboards
13	Embedded IPCs
14	Mobile Computers
15	IPC Peripherals
16	DAQ
17	Signal Conditioning
18	USB DAQ

EKI-2548MI

EKI-2548I

6Tx+2 Multi-Mode Managed Ethernet Switch with Wide Temperature

8Tx Managed Ethernet Switch with Wide Temperature

NEW



EKI-2548MI

EKI-2548I



Features

- All Fast Ethernet ports for 8 Copper (EKI-2548I)
- 6 Copper + 2 Multi mode Fiber (EKI-2548MI)
- Redundancy: Gigabit X-Ring (ultra high-speed recovery time < 10ms), 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
- Diagnostic: Port statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

EKI-2548I and EKI-2548MI 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-2548MI 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 (4- wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- **Transmission Speed** Fast Ethernet Copper: 10/100 Mbps, Auto-Negotiation

Interface

- **Connectors** RJ-45 x 8 (EKI-2548FI)
RJ-45 x 6; Multi mode Fiber x 2 (EKI-2548MI)
Console Port : RJ45 x 1
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR1, PWR2, P-Fail, Ring Master
Fast Ethernet copper: Link/Activity, speed (10/100 Mbps)
- **Console** RS-232 (RJ-45)

Network Management

- **Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- **VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- **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
- **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)** 152 x 59.6 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
- **Power Input** Redundant Power: DC 12V~48V / AC 24V
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** 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)

Certifications

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

Ordering Information

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

EKI-4524I

EKI-4524RI

24-port Ethernet Switch with Wide Temperature

24+2 SFP Port Unmanaged Industrial Ethernet Switch with Wide Temperature

NEW



EKI-4524I



EKI-4524RI



Features

- 1U 19" rack mount
- 2 SFP ports, plus 24 Fast Ethernet ports
- Supports 110 ~ 220 VAC/ VDC power input and power relay alarm
- Fanless design
- Front panel LEDs simplify the monitoring and management
- Rear-end wiring with LED indicator
- Designed to be IEC-61850-3 compliant
- Wide operating temperature from -40 ~ 85° C
- Supports 8K MAC address tables
- UL508 certification

Introduction

EKI-4524RI is designed to be compliant with the IEC61850-3 certification for power automation systems and supports 24 Fast Ethernet ports and 2 x 100Base-TX SFP slots for different SFP modules in any application. EKI-4524RI has wide range voltage power input which provides convenient and uninterrupted power supply. EKI-4524RI has two sides (Front and Rear) LED indicator to show the link status conveniently. It also provides relay output for an event alarm. Quick notification and fast response time can shorten service procedures and reduce data loss in the field.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x
- **LAN** 10/100Base-T(X), Optional 1000Base-FX
- **Transmission Distance** Ethernet: Up to 100m (4-wire Cat.5e)
SFP: Up to 30 km (depends on SFP)
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 24 x RJ-45 (Ethernet)
2 x SFP (mini-GBIC) ports
Power: 5 x 2 poles Terminal Block x 1 (EKI-4524I)
Power: 5 x 2 poles Terminal Block x 1 (EKI-4524RI)
1 x 6 pin removable Terminal Block x 1 (EKI-4524ARI)
- **LED Indicators** System: PWR, P-Fail
10/100 T(X): Link/Activity, Duplex/Collision
Copper: Link/Activity, Speed
SFP: Link/Activity

Mechanism

- **Enclosure** IP30, metal shell with solid mounting kits
- **Dimensions (W x H x D)** 440 x 44 x 280 mm
- **Mounting** 1U 19" Rack mount

Power

- **Power Input** AC 100 ~ 240 V 50/60 Hz (EKI-4524I & EKI-4524RI);
DC 100 ~ 240 V (EKI-4524I)
DC 12 ~ 48 V (EKI-4524ARI)
- **Fault Output** 1 Relay Output (20 mA @ DC 250 V)

Protection

- **Power Reverse** Present

Environment

- **Operating Temperature** -40 ~ 85° C (-40 ~ 185° F)
- **Storage Temperature** -40 ~ 85° C (-40 ~ 185° F)
- **Operating Humidity** 5 ~ 95% (non-condensing)
- **Storage Humidity** 0 ~ 95% (non-condensing)

Certifications

- **EMC** FCC Part 15
CISPR 22
- **Safety** UL 508
EN61000-6-2
EN61000-6-4
EN61000-4-2 Level 4
EN61000-4-3 Level 3
EN61000-4-4 Level 4
EN61000-4-5 Level 3
EN61000-4-6 Level 3
EN61000-4-8 Level 4
EN61000-4-11
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6
- **Substation** IEC61850-3 compliant

Ordering Information

- **EKI-4524I** 24-port Ethernet Switch w/Wide Temp
- **EKI-4524RI** 24+2 SFP Port Ethernet Switch w/Wide Temp
- **EKI-4524ARI** 24+2 SFP Port Ethernet Switch w/Wide Temp, 24/48 V_{DC}

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EKI-7526I

EKI-7526MI

16-port Unmanaged Industrial Ethernet Switch with Wide Temperature

16+2 SC Type Fiber Optic Unmanaged Industrial Ethernet Switch with Wide Temperature

NEW



EKI-7526I

EKI-7526MI



Features

- Provides 16 10/100Mbps Ethernet ports with RJ-45 connector
- Provides SC or ST type fiber optic ports plus 8 Fast Ethernet ports
- Supports Auto Negotiation and Auto MDI/MDI-X
- Provides flexible mounting: DIN-rail, Wall Mounting
- Supports Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperature (-40~75° C)

Introduction

EKI-7526I and EKI-7526MI are cost effective managed industrial Ethernet switches which support 16 x 10/100Base-TX fast Ethernet ports. Traditional fiber optic ports can be used for up-linking and long distance transmissions to flexibly fit the field requests. The long MTBF (Mean Time Between Failures) ensures low operation and maintenance costs. All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly. Both EKI-7526MI and EKI-7526I support advanced network standards to optimize network performance, reduce maintenance costs, and secure network safety..

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x
- **LAN** 10/100Base-T(X), Optional 100Base-FX
- **Transmission Distance** Ethernet: Up to 100 m (4- wire Cat.5e
Multi-mode Fiber: Up to 2km
- **Transmission Speed** Ethernet:10/100Mbps Auto-Negotiation

Interface

- **Connectors** 16 x RJ-45 (Ethernet), EKI-7526I
16 x RJ-45 (Ethernet) with 2 x SC type fiber optic,
(EKI-7526MI)
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR1, PWR2, P-Fail
10/100T(X): Link/Activity, Duplex/Collision

Power

- **Power Consumption** Max. 8.9W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output
- **Inrush Current** 200%@ 24V_{DC}

Mechanism

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

Protection

- **Reverse Polarity** 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** 237,130 hrs

Certifications

- **Safety** UL 508, Class I, Division 2
- **EMC** U.S.A.: FCC Part 15 C/SPR 22
EU: EN55011, EN61000-6-4, EN55022 Class A,
EN55024,
IEC61000-4-2/3/4/5/6/8/11/12, EN61000-6-2
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-7526I** 16-port Ethernet Switch w/ Wide Temp.
- **EKI-7526MI** 16+2MM Fiber Optic Ethernet Switch w/ Wide Temp

EKI-7529MI

8+2 Multi-mode Fiber Optic Industrial Unmanaged Ethernet Switch with Wide Temperature

NEW



Features

- Provides SC or ST type fiber optic ports plus 8 Fast Ethernet ports
- Supports Auto Negotiation and Auto MDI/MDI-X
- Provides flexible mounting: DIN-rail or wallmounting
- Supports Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Enable or disable broadcast storm protection through a simple dip switch
- Supports wide operating temperatures (-40 ~ 75° C)

Introduction

Aside from 2 SC or ST type ports, the EKI-7529MI or EKI-7529MI/ST come equipped with 8 x 10/100Base-TX fast Ethernet ports. Traditional SC or ST fiber optic ports can be used for uplinking and long distance transmissions to flexibly fit field requests. The RJ-45 interface can also be auto-detected, so MDI or MDI-X is automatically selected and a cross-over cable is not required. All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly. Furthermore, the power line of EKI-7529MI or EKI-7529MI/ST supports Surge and EFT protection which secure equipment against unregulated voltage and make systems safer and more reliable.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x
- **LAN** 10/100Base-T(X), Optional 100Base-FX
- **Transmission Distance** Ethernet: Up to 100 m
Multi-mode Fiber: Up to 2km

Transmission Speed

- **Ethernet:** Port 1~ 2: 10Mbps
Port 3~ 8: 10/100Mbps Auto-Negotiation

Interface

- **Connectors** 8 x RJ-45 (Ethernet) with 2 x SC or ST-type fiber optic connectors
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR1, PWR2, P-Fail
10/100T(X): Link/Activity, Duplex/Collision
- **Dip Switch** DIP1 (Port 1 and 2): ON: 10M Full Force/
OFF: 10M Full Auto-Negation
- DIP2: ON: Broadcast Storm filter enable/
OFF: Broadcast Storm filter Disable

Power

- **Power Consumption** Max. 6.7W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output
- **Mechanism**
- **Dimensions (W x H x D)** 79 x 152 x 105 mm
- **Enclosure** IP30, Metal shell with solid mounting kits
- **Mounting** DIN-rail, Wall

Protection

- **Reverse Polarity** Present
- **Overload**

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** 289,518 hrs, EKI-7529MI
289,329 hrs, EKI-7529MI/ST

Certifications

- **Safety** UL 508, Class I, Division 2
U.S.A.: FCC Part 15 CISPR 22
- **EMC** EU: EN55011, EN61000-6-4, EN55022 Class A,
EN55024,
IEC61000-4-2/3/4/5/6/8/11/12, EN61000-6-2
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-7529MI** 8+2MM Fiber Ethernet Switch w/ Wide Temp
- **EKI-7529MI/ST** 8+2MM Fiber Ethernet Switch w/ ST and Wide Temp

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EKI-7626C/CI

EKI-7629C/CI

16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch

8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch



Features

- Provides 2 Gigabit Copper/SFP combo port plus 16 Fast Ethernet ports (EKI-7626C/CI)
- Provides 2 Gigabit Copper/SFP combo port plus 8 Fast Ethernet ports (EKI-7629C/CI)
- SFP socket for Easy and Flexible Fiber Expansion
- Supports Auto Negotiation and Auto MDI/MDI-X
- Provides flexible mounting: DIN-rail, Wall Mounting
- Supports Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures from -40 ~ 75° C (EKI-7626CI/EKI-7629CI)

Introduction

Aside from 2 Gigabit fiber optic/copper combo ports, the EKI-7626C/CI comes equipped with 16 x 10/100Base-T(X) fast Ethernet ports and the EKI-7629C/CI comes equipped with 8 x 10/100Base-TX fast Ethernet ports. Traditional RJ-45 ports can be used for up-linking wide-band paths in short distances (< 100 m), or the appropriate replaceable SFP module can be used for the application of wideband uploading and long distance transmissions to flexibly fit field requests. The long MTBF (Mean Time Between Failures) ensures low operation and maintenance cost. EKI-7626C/CI & EKI-7629C/CI includes a switch controller that can automatically sense transmission speeds (10/100Mbps). The RJ-45 interface can also be auto-detected, so MDI or MDI-X is automatically selected and a cross-over cable is not required. All Ethernet ports have memory buffers that support the store-and-forward mechanism, which assures that data can be transmitted properly. Both EKI-7526MI or EKI-7526LI support advanced network standards to optimize network performance, reduce maintenance costs, and secure network safety.

Specifications

Communications

- Standard** IEEE 802.3, 802.3ab, 802.3u, 802.3x, 802.3z
- 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 RJ-45 cable suggested for Gigabit port)
Gigabit Fiber: Up to 110 km (depending on SFP)
- Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000Mbps, Auto-Negotiation
SFP: Up to 1000Mbps

Interface

- Connectors** 16 x RJ-45 (Ethernet) with 2 x RJ-45/SFP (mini-GBIC) combo ports (EKI-7626C/CI)
8 x RJ-45 (Ethernet) with 2 x RJ-45/SFP (mini-GBIC) combo ports (EKI-7629C/CI)
6-pin removable screw terminal (Power & Relay)
- LED Indicators** System: PWR1, PWR2, P-Fail
Gigabit Copper: Link/Activity, Speed (1000Mbps)
Gigabit SFP: Link/Activity

Power

- Power Consumption** Max. 6.5W
- Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- Fault Output** 1 Relay Output

Mechanism

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

Protection

- Reverse Polarity** Present
- Overload** EKI-7629C/CI: 1.6 A @ 12 V_{DC} (Re-settable Fuse)
EKI-7626C/CI: 3.5 A @ 12 V_{DC} (Fuse)

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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 hrs

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- EMC** U.S.A.: FCC Part 15 CISPR 22
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-7626C** 16+2G Gigabit Unmanaged Ethernet Switch
- EKI-7626CI** 16+2G Giga Unmanaged Ethernet Switch w/ Wide Temp
- EKI-7629C** 8+2G Gigabit Unmanaged Ethernet Switch
- EKI-7629CI** 8+2G Giga Unmanaged Ethernet Switch w/ Wide Temp

EKI-2728MI

6G+2G Multi-mode Unmanaged Ethernet Switch with Wide Temperature

NEW



Features

- Supports 10/100/1000Mbps Auto Negotiation
- Supports jumbo frame transmission up to 9kbytes
- Provides Slim size, DIN-rail with IP30 metal mechanism
- Provides broadcast storm protection
- Support Green Power Saving 5.49% power consumption
- Redundant DC power supply and one removable AC power input

Introduction

EKI-2728MI is a cost effective unmanaged industrial Ethernet switch which supports Giga Ethernet. It supports Green Power requirement, furthermore, EKI-2728MI 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, 802.1ab, 802.1z
- **LAN** 10/100/1000T: RJ-45 x 6
1000 Fiber: Fiber sockets (SC) x 2
- **Transmission Speed** Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Fiber sockets (SC) : up to 1000 Mbps

Interface

- **Connectors** 10/100/1000T: RJ-45 x 6
1000 Fiber: Fiber sockets (SC) x 2
6-pin removable screw terminal (Power & Relay)
- **LED Indicators** System: PWR1, PWR2, P-Fail,
Gigabit Ethernet copper: Link/Activity,
speed(10/100/1000 Mbps)
Fiber SC: Link/Activity
- **Console** RS-232 (RJ-45)

Mechanism

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

Power

- **Power Consumption** 9.3 Watt (Max)
- **Power Input** Redundant DC power supply: DC 12V~48V and one
removable AC power input: AC 24V
- **Fault Output** 1 Relay Output

Protection

- **Power Reverse** 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** 505,863 hours

Certifications

- **Safety** UL 508, Class I, Division 2
- **EMC** CE, FCC Class A,
EN61000-3-2/3
IEC61000-4-2/3/4/5/6/8/11/12, EN61000-6-2/42
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-2728MI** 6G+2G MM Unmanaged Ethernet Switch w/ Wide Temp

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EKI-2725

EKI-2728

5-port Gigabit Unmanaged Industrial Ethernet Switch

8-port Gigabit Unmanaged Industrial Ethernet Switch



Features

- Provides 5/8 Gigabit Ethernet ports with Auto MDI/MDI-X
- Supports 10/100/1000Mbps Auto Negotiation
- Supports jumbo frame transmission up to 9kbytes
- Provides Slim size, DIN-rail with IP30 metal mechanism
- Supports Redundant 12 ~ 48 V_{DC} power input and P-Fail Relay
- Provides broadcast storm protection

Introduction

The EKI-2725/2728 supports Gigabit Ethernet. The power is a +12 ~ 48 V_{DC} redundant input design, and is secured with a double protection mechanism: Power Polarity Reverse Protect and an Overload Current Resettable Fuse. The former tolerates reverse power wiring while the later secures the system from overload currents. As the power supply turns normal, EKI-2725/2728 will automatically get back to normal operation state. Each port of EKI-2725/2728 has 2 LED's to show the link status transmission speed and collision status. It also provides a relay output for an event alarm. In the event of a power failure, the built-in LED will activate the alarm to notify administrators. Engineers can simply verify the hardware status by checking the LED, and have troubleshooting easy and quick. EKI-2725/2728 comes with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.3ab
- **LAN** 100Base-TX, 10/100Base-T
- **Transmission Distance** Up to 100m (4-wire Cat.5e, Cat.6 RJ-45 cable)
- **Transmission Speed** Up to 1000 Mbps

Interface

- **Connectors** 5 x RJ-45 (EKI-2725) or 8 x RJ-45 (EKI-2728)
6-pin removable screw terminal (power & relay)
- **LED Indicators** P1, P2, P-Fail
10/100/100T(X): Link/Activity, Duplex/Collision

Power

- **Power Consumption** Max. 4.6W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Mechanism

- **Dimensions (W x H x D)** 37 x 140 x 95 mm
- **Enclosure** IP30, Metal shell with solid mounting kits
- **Mounting** DIN-rail, Wall

Protection

- **Power Reverse** Present
- **Overload** EKI-2725: 0.9 A @ 12 V_{DC} (Re-settable Fuse)
EKI-2728: 1.6 A @ 12 V_{DC} (Re-settable Fuse)

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** 627,958 hrs

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4
EN55022 Class A,
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-2725** 5-port Gigabit Ethernet Switch
- **EKI-2728** 8-port Gigabit Ethernet Switch

EKI-2525/I EKI-2528/I

5-port Unmanaged Industrial Ethernet Switch

8-port Unmanaged Industrial Ethernet Switch



Features

- Provides 5/8 Fast Ethernet ports with Auto MDI/MDI-X
- Supports 10/100Mbps Auto Negotiation
- Provides broadcast storm protection
- Provides compact size with DIN-rail/Wallmount, and IP30 metal mechanism
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Supports wide operating temperatures from -40 ~ 75° C (EKI-2525I/EKI-2528I)

Introduction

The EKI-2525/2528 supports a Fast Ethernet solution. The power is a +12 ~ 48 VDC redundant input design, and is secured with a double protection mechanism: Power Polarity Reverse Protect and an Overload Current Resettable Fuse. The former tolerates reverse power wiring while the later secures the system from overload currents. As the power supply turns normal, EKI-2525/2528 will automatically get back to work. Each port of EKI-2525/2528 has 2 LED's to show the link status transmission speed and collision status. It also provides a relay output for an event alarm. In the event of a power failure, the built-in LED will activate the alarm to notify administrators. Engineers can simply verify the hardware status by checking the LED, and have troubleshooting easy and quick. EKI-2525/2528 comes with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x
- **LAN** 10/100Base-T(X)
- **Transmission Distance** Up to 100 m
- **Transmission Speed** Up to 100 Mbps

Interface

- **Connectors** 8 x RJ-45 (EKI-2528) or 5 x RJ-45 (EKI-2525)
6-pin removable screw terminal (power & relay)
- **LED Indicators** P1, P2, P-Fail
10/100T(X): Link/Activity, Duplex/Collision

Power

- **Power Consumption** EKI-2528: Max. 5 W
EKI-2525: Max. 3 W
- **Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- **Fault Output** 1 Relay Output

Mechanism

- **Dimensions (W x H x D)** 37 x 140 x 95 mm
- **Enclosure** IP30, Metal shell with solid mounting kits
- **Mounting** DIN-rail, Wall

Protection

- **Reverse Polarity** Present
- **Overload** 0.9 A @ 12 V_{DC} (Resettable Fuse)

Environment

- **Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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** 689,000 hrs (EKI-2528)
1,260,000 hrs (EKI-2525)

Certifications

- **Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4
EN55022 Class A,
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-2525** 5-port Ethernet Switch
- **EKI-2525I** 5-port Ethernet Switch w/ Wide Temp
- **EKI-2528** 8-port Ethernet Switch
- **EKI-2528I** 8-port Ethernet Switch w/ Wide Temp

EKI-2525M

EKI-2526M/S

4+1 100FX Port Multi-Mode Unmanaged Industrial Ethernet Switch

4+2 100FX Port Unmanaged Industrial Ethernet Switch



Features

- Provides 4 x 10/100 Mbps Ethernet ports with RJ-45 connector
- Provides 1 x 100 Mbps Multi-mode SC type fiber optic port (EKI-2525M)
- Provides 2 x 100 Mbps Multi-mode SC type fiber optic port (EKI-2526M)
- Provides 2 x 100 Mbps Single-mode SC type fiber optic port (EKI-2526S)
- Supports full/half duplex flow control
- Supports MDI/MDI-X auto crossover
- Provides broadcast storm protection
- Provides redundant 12 ~ 48 V_{DC} power input
- Provides flexible mounting: DIN-rail, panel mounting

Introduction

EKI-2525M/2526M/2526S are industrial-grade Ethernet switches that enable you to expand your industrial network fast and cost-effectively. The EKI-2525M/2526M/2526S have four 10/100 Mbps Ethernet ports, and additionally the EKI-2525M/2526M provides one or two multi-mode fiber-optic ports, while the EKI-2526S provides two single-mode fiber-optic ports. Using fiber-optics, you can prevent noise from interfering with your system and supports high-speed (100 Mbps) and high-distance (up to 30 km) transmissions.

EKI-2525M/2526M/2526S have industrial-grade designs, assuring high reliability and stability in harsh environments, making it a robust bridge between enterprise fiber-optic backbones and Ethernet devices. EKI-2525M/2526M/2526S includes a switch controller that can automatically sense transmission speeds. The RJ-45 interface can also be auto-detected, so MDI or MDI-X is automatically selected and a crossover cable is not required. All the Ethernet ports have memory buffers that support the store and forward mechanism, assuring all data is transmitted properly.

Specifications

Communications

- Standard** IEEE 802.3, 802.3u, 802.3x
- LAN** 10/100Base-T(X), 100Base-FX
- Transmission Distance** Ethernet: Up to 100 m
Multi-mode Fiber: Up to 2 km (EKI-2525M/2526M)
Single-mode Fiber: Up to 30 km (EKI-2526S)
- Transmission Speed** Up to 100 Mbps
- Optical Fiber Multi-Mode** (EKI-2525M/EKI-2526M) Wavelength: 1310nm
Tx Power: -14/-20dBm
Rx Sensitivity: -31dBm
Parameters: 50/125um, 62.5/125um
- Single-Mode** (EKI-2526S) Wavelength: 1310nm
Tx Power: -8/-15dBm
Rx Sensitivity: -34dBm
Parameters: 9/125um

Interface

- Connectors** 4 x RJ-45 ports
1 x SC type fiber connector (EKI-2525M) or
2 x SC type fiber connector (EKI-2526M/S)
6-pin removable screw terminal (Power & Relay)
- LED Indicators** P1, P2, P-Fail
10/100T(X): Link/Activity, Duplex/Collision

Power

- Power Consumption** EKI-2525M: Max. 5 W
EKI-2526M: Max. 6.41 W
EKI-2526S: Max. 6.45 W
- Power Input** 12 ~ 48 V_{DC}, redundant dual inputs
- Fault Output** 1 Relay Output

Mechanism

- Dimensions (W x H x D)** 37 x 140 x 95 mm
- Enclosure** IP30, Metal shell with solid mounting kits
- Mounting** DIN-rail, Wall

Protection

- Reverse Polarity** Present
- Overload** EKI-2525M: 0.9 A @ 12 V_{DC} (Re-settable Fuse)
EKI-2526M/S: 1.6 A @ 12 V_{DC} (Re-settable Fuse)

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** 610,453 hrs

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4, EN55022 Class A,
EN61000-3-2/3, EN55024
IEC61000-4-2/3/4/5/6/8, EN61000-6-2/4
- Shock** IEC60068-2-27
- Freefall** IEC60068-2-32
- Vibration** IEC60068-2-6

Ordering Information

- EKI-2525M** 5-port Ethernet Switch w/ 1-port 100FX MM
- EKI-2526M** 6-port Ethernet Switch w/ 2-port 100FX MM
- EKI-2526S** 6-port Ethernet Switch w/ 2-port 100FX SM

EKI-7659CPI

8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature

NEW


Features

- 2 Gigabit Copper/SFP combo ports, plus 8 PoE injector ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring (ultra high-speed recovery time < 10ms), 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, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures (-40 ~ 75° C)

Introduction

EKI-7659CPI supports 8 Power over Ethernet (PoE) ports and 2 Gigabit combo ports. The PoE device helps realize a centralized power supply solution and provides up to 15.4 watts of power per port. To create reliability in your network, the EKI-7659CPI 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-7659CPI 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, 802.3af, 10/100/1000Base-T(X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
- LAN**
- Transmission Distance** Ethernet: Up to 100 m (4-wire Cat.5e, Cat.6 RJ-45 cable suggested for Gigabit port)
SFP: Up to 110 km (depends on SFP)
- Transmission Speed** Ethernet: 10/100Mbps Auto-Negotiation
Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation
Gigabit Fiber: Up to 1000 Mbps

Interface

- Connectors** 8 x RJ-45 (Ethernet)
2 x RJ-45/SFP (mini-GBIC) combo ports
6-pin removable screw terminal (Power&Relay)
System: PWR, PWR1, PWR2, R.M., P-Fail
10/100T(X): Link/Activity, Duplex/Collision
Gigabit Copper: Link/Activity, Speed (1000Mbps)
SFP: Link/Activity
RS-232 (RJ-45)
- LED Indicators**
- Console**

Network Management

- Configuration** Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration
- VLAN** IEEE 802.1Q, GVRP, Port-based VLAN
- 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
- 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
- Mounting** DIN-rail, Wall

Power

- Power Consumption** 116 W (Full Load)
- Power Input** 48 V_{DC}, redundant dual power input
- Power Output** 15.4W at 48V (per PoE port)
- Fault Output** 1 Relay Output

Protection

- Power Reverse** Present
- Overload** 3.5 A @ 12 V_{DC} (Fuse)

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** 190,200 hours

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- EMC** EU: EN55011, EN61000-6-4, EN55022 Class A, 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-7659CPI** 8+2G Giga Managed PoE Switch w/Wide Temp

1
Operator Panels

2
Fanless Panel PCs

3
Panel Computers

4
Display Solutions

5
Ethernet Switches

6
Device Servers

7
Serial Comm. Cards

8
Video Surveillance

9
Pre-Configured Systems

10
IPC Chassis

11
SBCs and Backplanes

12
Industrial Motherboards

13
Embedded IPCs

14
Mobile Computers

15
IPC Peripherals

16
DAQ

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Signal Conditioning

18
USB DAQ

EKI-2525P EKI-2525SPI EKI-2526PI

5-port Industrial PoE Switch 5-port Industrial PoE Switch with 1x100Fx Single-Mode and Wide Temperature 6-port Industrial PoE Switch with Wide Temperature



Features

- Provides 5/6 Fast Ethernet ports with 4 PoE ports with injector function
- Provides 1 x 100Mbps Single-mode SC type fiber optic port (EKI-2525SPI)
- Supports 10/100Mbps Auto Negotiation
- Provides broadcast storm protection
- Supports Ethernet ESD protection
- Provides Slim size, DIN-rail/Wallmount with IP30 metal mechanism
- Supports Redundant 48 V_{DC} power input and P-Fail relay
- Supports operating temperatures from -10 ~ 60° C (EKI-2525P)
- Supports wide operating temperature -40 ~ 75° C (EKI-2525SPI/EKI-2526PI)

Introduction

The EKI-2525P/EKI-2525SPI is a 5-port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet switch and EKI-2526PI is a 6-port unmanaged PoE Industrial Ethernet switch, they support 4 PoE ports which are classified as power source equipments (PSE). The PoE devices makes centralized power supply come true and provides up to 15.4 watts of power per port. Advantech EKI PoE devices can be used to power IEEE802.3af compliant powered devices (PD) by Ethernet cable and eliminates the need for additional power wiring. Advantech EKI PoE devices come equipped with all the standard features of the EKI family. Furthermore, it offers a 48 V_{DC} redundant power input design (EKI-2525P/EKI-2526PI), and is secured with a double protection mechanism; Power Polarity Reverse Protect and an Overload Current Resettable Fuse. Advantech EKI PoE devices come with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

- Standard** IEEE 802.3, 802.3u, 802.3x, 802.3af
- LAN** 10/100Base-T(X)
- Transmission Distance** Ethernet: Up to 100 m (EKI-2525P/EKI-2526PI)
Single-mode Fiber: Up to 30km (EKI-2525SPI)
- Transmission Speed** Up to 100 Mbps

Fiber Optics (EKI-2525SPI)

- Signal Mode** 1310nm
Tx Power: -8/-15 dBm
Rx Sensitivity: -34dBm
Parameters: 9/125um

Interface

- Connectors** PoE Ports: 4 (Ports 1 ~ 4)
Ethernet x1 (EKI-2525P)
1xSC type fiber connector(EKI-2525SPI)
Ethernet x2 (EKI-2526PI)
6-pin removable screw terminal (power & relay)
- LED Indicators** P1, P2, P-Fail
10/100TX: Link/Activity, Duplex/Collision

Power

- Power Consumption** EKI-2525P: 65 W (Full load PoE)
EKI-2525SPI: 62.5 W (Full load PoE)
EKI-2526PI: 62.6 W (Full load PoE)
- Power Input** 48 V_{DC} (EKI-2525P/EKI-2526PI), redundant dual inputs
24/48 V_{DC} (EKI-2525PA), redundant dual inputs
- Power Output** 15.4 W at 48V (per PoE port)
- Fault Output** 1 Relay Output

Mechanism

- Dimensions (W x H x D)** 37 x 140 x 95 mm (EKI-2525P/EKI-2525SPI)
48.6 x 140 x 95 mm (EKI-2526PI)
- Enclosure** IP30, Metal shell with solid mounting kits
- Mounting** DIN-rail, Panel

Protection

- Reverse Polarity** Present
- Overload** EKI-2525P: 3 A @ 48 V_{DC}
EKI-2525SPI: 3 A @ 48 V_{DC}
EKI-2526PI: 3.5 A @ 48 V_{DC}

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F) (EKI-2525P)
Wide temp. model -40 ~ 75° C (-40 ~ 167° F) (EKI-2525SPI/EKI-2526PI)
- Storage Temperature** -40 ~ 85° C (-40 ~ 185° F)
- Operating Humidity** 5 ~ 95% (non-condensing)
- Storage Humidity** 0 ~ 95% (non-condensing)
- MTBF** 440,132 hrs

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4
EN55022 Class A,
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-2525P** 5-port PoE Switch
- EKI-2525SPI** 5-port PoE Switch w/ 1-port 100Fx SM/ Wide Temp
- EKI-2526PI** 6-port PoE Switch w/ Wide Temp

EKI-2525PA

EKI-2528PAI

5-port Industrial PoE Switch with 24/48 V_{DC} Power Input

8-port Industrial PoE Switch with 24/48 V_{DC} Power Input and Wide Temperature

NEW



EKI-2525PA

EKI-2528PAI



Features

- Provides 5/8 Fast Ethernet ports with 4 PoE ports with injector function
- Supports 10/100Mbps Auto Negotiation
- Provides broadcast storm protection
- Supports Ethernet ESD protection
- Provides power line EFT protection
- Provides Slim size, DIN-rail/Wallmount with IP30 metal mechanism
- Supports Redundant 24/48 V_{DC} power input and P-Fail Relay
- Supports operating temperatures from -10 ~ 60° C (EKI-2525PA)
- Supports wide operating temperature -40 ~ 75° C (EKI-2528PAI)

Introduction

The EKI-2525PA and EKI-2528PAI are a 5/8-port unmanaged PoE (Power-over-Ethernet) Industrial Ethernet switches that supports 4 PoE ports which are classified as power source equipment (PSE). These PoE devices make centralized power supply possible and provide up to 15.4 watts of power per port. Advantech EKI PoE devices can be used to power IEEE802.3af compliant powered devices (PD) through Ethernet cable and eliminate the need for additional power wiring. Advantech EKI PoE devices come equipped with all the standard features of the EKI family. Furthermore, they offer a 24/48 VDC redundant power input design and is secured with a double protection mechanism; Power Polarity Reverse Protect and an Overload Current Resettable Fuse. Advantech EKI PoE devices come with compact metal housing that rates IP30 to help against from dusty industrial environments.

Specifications

Communications

- Standard** IEEE 802.3, 802.3u, 802.3x, 802.3af
- LAN** 10/100Base-T(X)
- Transmission Distance** Up to 100 m
- Transmission Speed** Up to 100 Mbps

Interface

- Connectors** PoE Ports: 4 (Ports 1 ~ 4)
Ethernet ports: 1 (Port 5 ~ Port 8), EKI-2525PA
Ethernet ports: 4 (Port 5 ~ Port 8), EKI-2528PAI
6-pin removable screw terminal (power & relay)
- LED Indicators** P1, P2, P-Fail
10/100TX: Link/Activity, Duplex/Collision

Power

- Power Consumption** EKI-2525PA: 62.5 W (Full load PoE)
EKI-2528PAI: 65 W (Full load PoE)
- Power Input** 24/48 V_{DC}, redundant dual inputs
- Power Output** 15.4 W at 48V (per PoE port)
- Fault Output** 1 Relay Output

Mechanism

- Dimensions (W x H x D)** 48.6 x 140 x 95 mm
- Enclosure** IP30, Metal shell with solid mounting kits
- Mounting** DIN-rail, Panel

Protection

- Reverse Polarity** Present
- Overload** 5 A @ 24/48 V_{DC}

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F) (EKI-2525PA)
Wide temp. model -40 ~ 75° C (-40 ~ 167° F) (EKI-2528PAI)
- Storage Temperature** -40 ~ 85° C (-40 ~ 185° F)
- Operating Humidity** 5 ~ 95% (non-condensing)
- Storage Humidity** 0 ~ 95% (non-condensing)
- MTBF** 440,132 hrs

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950(EKI-2525PAI)
UL508(EKI-2528PAI)
- EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4
EN55022 Class A,
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-2525PA** 5-port PoE Switch 24/48 V_{DC} Power Input
- EKI-2528PAI** 8-port PoE Switch 24/48 V_{DC} Power Input, Wide Temp

1
Operator Panels

2
Fanless Panel PCs

3
Panel Computers

4
Display Solutions

5
Ethernet Switches

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Device Servers

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Serial Comm. Cards

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Video Surveillance

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Pre-Configured Systems

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IPC Chassis

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IPC Peripherals

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DAQ

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Signal Conditioning

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USB DAQ

EKI-2701PSI

Industrial PoE Splitter with Wide Temperature



Features

- Supports 10/100T(X) for PoE in and Data out
- IEEE802.3af compliant split power/data from PoE equipment
- Power isolation and short circuit protection for power output
- Supports output power up to 12.95 W at 24 V_{DC}
- Provides slim size and DIN-rail/Wallmount with IP30 metal mechanism
- Supports operating temperatures from -40 ~ 75° C

Introduction

With the technology of PoE (Power over Ethernet), we can transfer both data and electrical power to Ethernet-enabled devices using a standard Ethernet CAT5 cable, EKI-2701PSI plays the role of powered device (PD) and splits power from PoE to Ethernet devices. In this case, both power and data can be transmitted up to 328 feet (100m) from power source equipment (PSE). This product can operate in a wide range of temperature between -40 and 75° C, and the rugged hardware design makes EKI-2701PSI perfect to ensure your PoE Ethernet equipment can meet industrial applications demanding.

Specifications

Communications

- **Standard** IEEE 802.3, 802.3u, 802.3x, 802.3af, 802.3ab
- **LAN** 100Base-TX, 10/100Base-T(X)
- **Transmission Distance** Up to 100 m
- **Transmission Speed** up to 1000 Mbps

Interface

- **Connectors** PoE IN: RJ-45
DATA OUT: RJ-45
6-pin removable screw terminal (power output)
- **LED Indicators** Power
Link/Activity, Duplex/Collision

Power

- **Power Consumption** 17.76W @ 48 V_{DC}
- **Power Input** +44 ~ 57 V_{DC}
- **Power Output** 12.95 W @ 24 V_{DC}

Mechanism

- **Dimensions (W x H x D)** 37 x 140 x 95 mm
- **Enclosure** IP30, Metal shell with solid mounting kits
- **Mounting** DIN-rail, Wall

Protection

- **Overload** 0.539A @ 24 V_{DC}

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** 440,132 hrs

Certifications

- **Safety (1000 Mbps)** UL 60950-1, CAN/CSA-C22.2 No.60950
- **EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4
EN55024
IEC61000-4-2/3/4/5/6/8
EN61000-6-2/2/4
- **Shock** IEC60068-2-27
- **Freefall** IEC60068-2-32
- **Vibration** IEC60068-2-6

Ordering Information

- **EKI-2701PSI** PoE Splitter w/ Wide Temp

EKI-2541M/MI EKI-2541S/SI

10/100T(X) to Multi-Mode SC Type Fiber Optic Industrial Media Converter

10/100T(X) to Single-Mode SC Type Fiber Optic Industrial Media Converter



Features

- Provides 1 x 10/100 Mbps Ethernet port with RJ45 connector
- Provides 1 x 100 Mbps multi-mode/single-mode SC type fiber port
- Provides internal jumper for Link Fault Pass-through (LFP) setting
- Supports full/half duplex flow control
- Supports store and forward transmission
- Supports auto-negotiation
- Supports MDI/MDI-X auto crossover
- Supports redundant +12-48 V_{DC} power input
- Provides flexible mounting: DIN-rail & Panel Mounting
- Supports wide operating temperatures from -40 ~ 75° C (EKI-2541MI/SI)

Introduction

EKI-2541M/2541S is designed to convert Ethernet networks to fiber networks by transparently converting Ethernet signals to optic signals. The advantages of fiber optics are wide bandwidth, EMI immunity and long-distance transmissions. Therefore, EKI-2541M/2541S is an ideal solution for "fiber to building" applications at central offices or local sites. EKI-2541M/2541S supports MDI/MDIX auto detection, so you don't need to use crossover wires. Furthermore, the EKI-2541M/2541S can work normally from -10 ~ 60° C and accepts a wide voltage range from +12 ~ 48 V_{DC}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

Link Fault Pass-Through (LFP)

EKI-2541M/2541S is an enhanced Ethernet to fiber-optic converter. Aside from its standard features, the versatile EKI-2541M/2541S also has the LFP (Link Fault Pass-through) feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. Use the internal jumper to enable the LFP function, then EKI-2541M/2541S will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

Specifications

Communications

- Standard** IEEE802.3, 802.3u, 802.3x
- LAN** 10/100Base-T(X), 100Base-FX
- Transmission Distance** Ethernet: Up to 100m
Fiber: Multi-mode: up to 2 km
Fiber: Single-mode: up to 30 km
Up to 100 Mbps
- Transmission Speed** Wavelength: 1310nm
Tx Power: -14/-20 dBm
Rx Sensitivity: -31dBm
Parameters: 50/125um, 62.5/125um
- Optical Fiber** Wavelength: 1310nm
Tx Power: -8/-15 dBm
Rx Sensitivity: -34dBm
Parameters: 9/125um
- Signal Mode** (EKI-2541S/SI)

Interface

- Connectors** 1 x RJ-45
1 x SC type fiber connector
6-pin removable screw terminal (power)
- LED Indicators** P1, P2, P-Fail
Ethernet: 10/100M, LNK/ACT
Fiber: HDX/FDX, LNK/ACT
- DIP Switch** Port/Power Alarm, LFP
Fiber: HDX/FDX, Converter/Switch

Power

- Power Consumption** Max. 5W
- Power Input** 12 ~ 48 V_{DC}, redundant dual inputs

Mechanism

- Dimensions (W x H x D)** 37 x 140 x 95 mm
- Mounting** DIN-rail, Wall

Protection

- Power Reverse** Present
- Overload** 0.9 A @ 12 V_{DC} (Resetable Fuse)

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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** 577,175 hrs

Certifications

- Safety** UL 60950-1, CAN/CSA-C22.2 No. 60950
- EMC** U.S.A.: FCC Part 15 CISPR 22
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-2541M** Ethernet to MM Fiber Converter
- EKI-2541MI** Ethernet to MM Fiber Converter w/ Wide Temp.
- EKI-2541S** Ethernet to SM Fiber Converter
- EKI-2541SI** Ethernet to SM Fiber Converter w/ Wide Temp.

1	Operator Panels
2	Fanless Panel PCs
3	Panel Computers
4	Display Solutions
5	Ethernet Switches
6	Device Servers
7	Serial Comm. Cards
8	Video Surveillance
9	Pre-Configured Systems
10	IPC Chassis
11	SBCs and Backplanes
12	Industrial Motherboards
13	Embedded IPCs
14	Mobile Computers
15	IPC Peripherals
16	DAQ
17	Signal Conditioning
18	USB DAQ

EKI-2741 Series

10/100/1000T(X) to Fiber Optic Gigabit Industrial Media Converters



Features

- Provides 1 x 1000 Mbps Ethernet port with RJ45 connector
- Provides 1 x 1000 Mbps fiber port with SC or SFP (mini-GBIC) type connector for 1000Base-SX/LX device
- Provides DIP switch for full/half duplex setting
- Supports MDI/MDI-X auto crossover
- Supports auto-negotiation
- Supports redundant +12-48 V_{DC} power input
- Provides flexible mounting: DIN-rail & Wallmounting
- Provides Link Fault Pass-through (LFP)
- Supports wide operating temperatures from -40 ~ 75° C (EKI-2741LXI)
- Jumbo Frame: 9K bytes

Introduction

EKI-2741 is designed to convert Gigabit Ethernet networks to Gigabit fiber networks by transparently converting Ethernet signals to optic signals. Therefore, EKI-2741 is an ideal solution for "fiber to building" applications at central offices or local sites. EKI-2741 supports MDI/MDIX auto detection, so you don't need to use crossover wires. Furthermore, the EKI-2741 accepts a wide voltage range from +12 ~ 48 V_{DC}. Besides, it also provides 3,000 V_{DC} surge (EFT) protection against over-voltage, so it is suitable for harsh operating environments.

EKI-2741 is an enhanced gigabit Ethernet to fiber optic converter. Aside from its standard features, the versatile EKI-2741 also has the LFP (Link Fault Pass-through) feature. When one side of the link fails, the other side continues transmitting packets, and waiting for a response that never arrives from the disconnected side. EKI-2741 will force the link to shut down as soon as noticed that the other link has failed, giving the application software a chance to react to the situation.

Specifications

Communications

- Standard** IEEE802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z
- LAN** 10/100/1000Base-T(X), 1000Base-SX or 1000Base-LX
- Transmission Distance** Ethernet: Up to 100 m
Fiber:
Multi-mode: Up to 550 m
Single-mode: Up to 10 km (EKI-2741LX/LXI) or up to 110 km (EKI-2741F)
SFP: Up to 110 km (EKI-2741F)
Up to 1000 Mbps

- Transmission Speed**
- Optical Fiber**

Multi Mode (EKI-2741SX)
Signal Mode (EKI-2741LX/LXI)
Wavelength: 850nm
Tx Power: -4/-9.5dBm
Rx Sensitivity: -18dBm
Parameters: 50/125um, 62.5/125um
Wavelength: 1310nm
Tx Power: -3/-9.5 dBm
Rx Sensitivity: -20dBm
Parameters: 9/125um

Interface

- Connectors** 1 x RJ-45
1 x SC type fiber connector (EKI-2741SX/LX/LXI) or 1 x SFP type fiber connector (EKI-2741F)
6-pin removable screw terminal (power & relay)
- LED Indicators** P1, P2, P-Fail
Fiber: LNK/ACT
Ethernet: 1000M, LNK/ACT
- DIP Switch** Port Alarm, LFP

Power

- Power Consumption** 5.28 W (EKI-2741F)
5.18 W (EKI-2741SX)
5.30 W (EKI-2741LX/LXI)
- Power Input** 12 ~ 48 V_{DC}, redundant dual inputs

Mechanism

- Dimensions (W x H x D)** 37 x 140 x 95 mm
- Enclosure** IP30, Metal shell with solid mounting kits
- Mounting** DIN-rail, Wall

Protection

- Power Reverse** Present
- Overload** 0.9 A/12 V_{DC} (Resettable Fuse)

Environment

- Operating Temperature** -10 ~ 60° C (14 ~ 140° F)
Wide 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** 515,600 hrs (EKI-2741F)
525,300 hrs (EKI-2741SX/LX/LXI)

Certifications

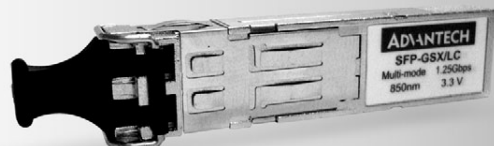
- Safety** UL 60950-1, CAN/CSA-C22.2 No.60950
- EMC** U.S.A.: FCC Part 15 CISPR 22
EU: EN55011, EN61000-6-4, EN55022 Class A, EN61000-3-s2/3, EN55024, IEC61000-4-2/3/4/5/6/8, EN61000-6-2
- Shock** IEC60068-2-27
- Freefall** IEC60068-2-32
- Vibration** IEC60068-2-6

Ordering Information

- EKI-2741F** Giga Ethernet to SFP Type Fiber Converter
- EKI-2741SX** Giga Ethernet to 1000Base-SX Fiber Converter
- EKI-2741LX** Giga Ethernet to 1000Base-LX Fiber Converter
- EKI-2741LXI** Ethernet to 1000Base-LX Converter w/Wide Temp

Accessories

Small Form-factor Pluggable (SFP) Transceiver Modules



Features

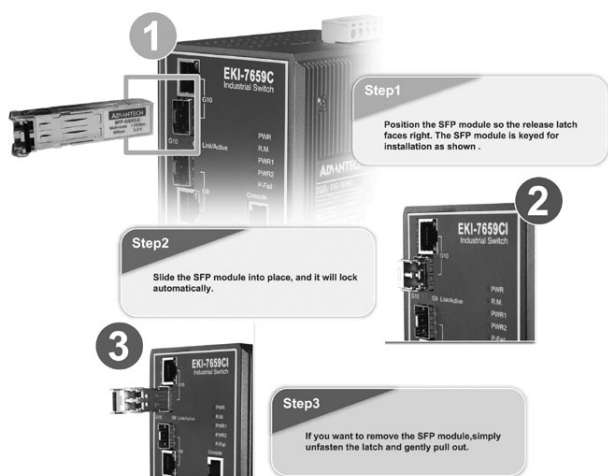
- Industry standard small form pluggable (SFP) package
- Immovable lock design
- Hot pluggable
- Duplex LC connector
- Full duplex speeds support
- TTL signal detect indicator
- 3.3 V_{DC} power supply
- Industry leading EMI performance for high port density
- Class 1 laser product complies with EN 60825-1
- RoHS compliant

Introduction

Advantech's Small Form-factor Pluggable (SFP) transceiver family is available with a variety of different types, allowing users to select the appropriate transceiver for each link to provide the required optical reach over the available optical fiber type. Advantech's SFP transceiver immovable lock design can fix SFP module into the switch firmly. Besides Advantech's SFP transceiver's compact design provides high port density and compliant with Fast Ethernet and IEEE802.3z Gigabit Ethernet Standards. Advantech's SFP transceivers ensure your networks operate with maximum performance, reliability, and flexibility.

Specifications

Category	Distance	Model Name	Wave length	Tx Power	Rx sensitivity	Link Budget
100Base-FX	M.M. (2 km)	SFP-FXM/LC	1310 nm	-14dBm (min) ~ -20dBm (Max)	-31dBm (Max)	11dBm
	S.M. (30 km)	SFP-FXS/LC-30	1310 nm	-8dBm (min) ~ -15dBm (Max)	-34dBm (Max)	11dBm
1000Base	SX (550 m)	SFP-GSX/LC	850 nm	-4dBm (min) ~ -9.5dBm (Max)	-18dBm (Max)	19dBm
	LX (10 km)	SFP-GLX/LC-10	1310 nm	-3dBm (min) ~ -9.5dBm (Max)	-20dBm (Max)	19dBm
	LX (20 km)	SFP-GLX/LC-20	1310 nm	-2dBm (min) ~ -8dBm (Max)	-23dBm (Max)	19dBm
	LX (40 km)	SFP-GLX/LC-40	1310 nm	+1dBm (min) ~ -4dBm (Max)	-24dBm (Max)	20dBm
1000Base	Up to 100 m	SFP-GTX/RJ45	N/A	N/A	N/A	N/A



Ordering Information

- | | |
|------------------------|--|
| ▪ SFP-FXM/LC | 100Base-FX Multi-mode SFP module |
| ▪ SFP-FXS/LC-30 | 100Base-FX Single-mode SFP module |
| ▪ SFP-GSX/LC | 1000Base-SX Multi-mode SFP module |
| ▪ SFP-GLX/LC-10 | 1000Base-LX Single-mode SFP module (10 km) |
| ▪ SFP-GLX/LC-20 | 1000Base-LX Single-mode SFP module (20 km) |
| ▪ SFP-GLX/LC-40 | 1000Base-LX Single-mode SFP module (40 km) |
| ▪ SFP-GTX/RJ45 | 1000Base RJ45 SFP module |

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