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Industrial Ethernet Solutions

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Industrial Ethernet Product Selection Guide

EN50155 Ethernet Switches




Model Name		EKI-6558TI	EKI-6559TMI	EKI-6528TI	EKI-6528TPI
Description		EN50155 IP67 8-port M12 Managed Ethernet Switch with Wide Temperature	EN50155 IP67 8-port M12 + 2-port Fiber Optic Managed Ethernet Switch with Wide Temperature	EN50155 8-port M12 Unmanaged Switch with Wide Temperature	EN50155 8-port PoE M12 Unmanaged Switch with Wide Temperature
Interface	Ports Number	8	10	8	8
	10/100Base-T (X)	8	8	8	4
	100BaseFX	-	2	-	-
	10/100/1000Base-T (X)	-	-	-	-
	1000Base-SX/LX/LHX/ XD/ZX/EZX	-	-	-	-
	PoE (10/100 Mbps)	-	-	-	4
	PoE (10/100/1000 Mbps)	-	-	-	-
	DI/DO	-	-	-	-
	Console	V	V	-	-
Network Management	Redundancy	V	V	-	-
	Diagnostics	V	V	-	-
	VLAN	V	V	-	-
	Configuration	V	V	-	-
	SNMP	V	V	-	-
	Security	V	V	-	-
	Traffic Control	V	V	-	-
Power	2 x Unregulated 12 ~ 48 V_{DC}	V	V	12 ~ 48 V_{DC}	24 ~ 48 V_{DC}
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	-	-	-	-
	Relay Output	V	V	-	-
Mechanism	DIN-rail Mount	-	-	V	V
	Wall Mount	V	V	V	V
	Rack Mount	-	-	-	-
	IP Level	IP67	IP67	IP40	IP40
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)	-	-	-	-
	-40 ~ 75°C (-40 ~ 158°F)	V	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	-	-	V	V
	Class I, Division 2	-	-	-	-
	UL 508	V	V	-	-
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PoE Switches






Model Name		EKI-9312P	EKI-9316P	EKI-7659CPI	EKI-2726FHPI	EKI-2525P	EKI-2526PI
Description		12 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+	16 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+	8+2G Port Gigabit Managed Redundant Industrial PoE Switch with Wide Temperature	4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch	5-port Industrial PoE Switch	6-port Industrial PoE Switch with Wide Temperature
Interface	Ports Number	12	16	10	6	5	6
	10/100Base-T (X)	-	-	-	-	1	2
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	-	-	-	4	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	4	4	2 Combo	2	-	-
	PoE (10/100 Mbps)	-	-	8	-	4	4
	PoE (10/100/1000 Mbps)	8 (PoE+)	12 (PoE+)	-	4 (PoE+)	-	-
	M12 Connector (10/100 Mbps)	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	-
	Console	1	1	V	-	-	-
Network Management	Redundancy	V	V	V	-	-	-
	Diagnostics	V	V	V	-	-	-
	VLAN	V	V	V	-	-	-
	Configuration	V	V	V	-	-	-
	SNMP	V	V	V	-	-	-
	Security	V	V	V	-	-	-
	Traffic Control	V	V	V	-	-	-
Power	2 x Unregulated 48 V_{DC}	48 V_{DC}	48 V_{DC}	48 V_{DC}	48 V_{DC}	48 V_{DC}	48 V_{DC}
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	-	-	-	-	-	-
	Relay Output	-	-	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V	V	V
	Wall Mount	v	v	V	V	V	V
	Rack Mount	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30
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	-
	-40 ~ 75°C (-40 ~ 167°F)	v	v	V	V	-	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certification	CE	v	v	V	V	V	V
	FCC	v	v	V	V	V	V
	UL/cUL 60950-1	v	v	V	-	V	V
	Class I, Division 2	v	v	-	-	-	-
	UL 508	-	-	-	V	-	-
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Model Name		EKI-2525PA	EKI-2528PAI	EKI-2701HPI	EKI-2701PSI
Description		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+ Injector with Wide Temperature	Industrial PoE Splitter with Wide Temperature
Interface	Ports Number	5	8	2	2
	10/100Base-T (X)	1	4	-	-
	100BaseFX	-	-	-	-
	10/100/1000Base-T (X)	-	-	1	1
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	-	-
	PoE (10/100 Mbps)	4	4	-	-
	PoE (10/100/1000 Mbps)	-	-	1 (PoE+)	1
	M12 Connector (10/100 Mbps)	-	-	-	-
	DI/DO	-	-	-	-
	Console	-	-	-	-
Network Management	Redundancy	-	-	-	-
	Diagnostics	-	-	-	-
	VLAN	-	-	-	-
	Configuration	-	-	-	-
	SNMP	-	-	-	-
	Security	-	-	-	-
	Traffic Control	-	-	-	-
Power	2 x Unregulated	24/48 V_{DC}	24/48 V_{DC}	24/48 V_{DC}	44~57 V_{DC}
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	-	-	-	-
	Relay Output	V	V	V	-
Mechanism	DIN-rail Mount	V	V	V	V
	Wall Mount	V	V	V	V
	Rack Mount	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30
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	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	-	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	-	-	V	V
	Class I, Division 2	-	-	-	-
	UL 508	V	V	V	-
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Managed Ethernet Switches







Model Name		EKI-9778	EKI-9316/ EKI-9312	EKI-7758F	EKI-7656C/CI	EKI-7659C/CI	EKI-7657C/CI	EKI-7654C
Description		24GbE + 4 10GbE Port Managed Switch with Combo Port	16/12 Port Industrial-Class Managed DIN Rail Switch Full Gigabit Switch	4G+4SFP Gigabit Managed Redundant Industrial Ethernet Switch	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
Interface	Ports Number	28	16/12	8	18	10	10	6
	10/100Base-T (X)	-	-	-	16	8	7	4
	100BaseFX	-	-	-	-	-	-	-
	10/100/1000Base-T (X)	16 combo	12/8	4	2	2	3	2
	1000Base-SX/LX/LHX/ XD/ZX/EZX	8 & 16 combo	4	4	2 (Combo)	2 (Combo)	3 (Combo)	2 (Combo)
	10GBE SFP+	4	-	-	-	-	-	-
	PoE (10/100 Mbps)	-	-	-	-	-	-	-
	DI/DO	-	-	-	-	-	2	-
	Console	1	1	V	V	V	V	V
Network Management	Redundancy	V	V	V	V	V	V	V
	Diagnostics	V	V	V	V	V	V	V
	VLAN	V	V	V	V	V	V	V
	Configuration	V	V	V	V	V	V	V
	SNMP	V	V	V	V	V	V	V
	Security	V	V	V	V	V	V	V
	Traffic Control	V	V	V	V	V	V	V
Power	2 x Unregulated 12 ~ 48 V_{DC}	-	24/48 V_{DC}	V	V	V	V	V
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	V	-	-	-	-	-	-
	Relay Output	-	-	V	V	V	V	V
Mechanism	DIN-rail Mount	-	V	V	V	V	V	V
	Wall Mount	-	V	V	V	V	V	V
	Rack Mount	V	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30	IP30
Protection	ESD (Ethernet)	V	V	V	V	V	V	V
	Surge (EFT for power)	V	V	V	V	V	V	V
	Power Reverse	V	V	V	V	V	V	V
Operating Temperature	-10 ~ 60°C (14 ~ 140°F)	v	-	V	V	V	V	V
	-40 ~ 75°C (-40 ~ 158°F)	-	v	-	V (EKI-7656CI)	V (EKI-7659CI)	V (EKI-7657CI)	-
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-	-
Certification	CE	V	V	V	V	V	V	V
	FCC	V	V	V	V	V	V	V
	UL/cUL 60950-1	Ongoing	V	V	V	V	V	V
	Class I, Division 2	-	V	V	V	-	V	-
	UL 508	-	-	-	-	-	-	-
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Managed Ethernet Switches




Model Name		EKI-7559SI/MI	EKI-7554SI/MI	EKI-2748FI/CI	EKI-2548I
Description		8+2 SC Type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	4+2 SC Type Fiber Optic Managed Redundant Industrial Ethernet Switch with Wide Temperature	8Gx Managed Ethernet Switch with Wide Temperature	8Tx Managed Ethernet Switch with Wide Temperature
Interface	Ports Number	10	6	8	8
	10/100Base-T (X)	8	4	-	8
	100BaseFX	2	2	-	-
	10/100/1000Base-T (X)	-	-	4/6	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	4/2	-
	PoE (10/100 Mbps)	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-
	DI/DO	-	-	-	-
	Console	V	V	V	-
Network Management	Redundancy	V	V	V	V
	Diagnostics	V	V	V	V
	VLAN	V	V	V	V
	Configuration	V	V	V	V
	SNMP	V	V	V	V
	Security	V	V	V	V
	Traffic Control	V	V	V	V
Power	2 x Unregulated 12 ~ 48 V_{DC}	V	V	V	V
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-
	Relay Output	V	V	V	V
Mechanism	DIN-rail Mount	V	V	V	V
	Wall Mount	V	V	V	V
	Rack Mount	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30
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)	-	-	-	-
	-40 ~ 75°C (-40 ~ 167°F)	V	V	V	V
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-
Certification	CE	V	V	V	V
	FCC	V	V	V	V
	UL/cUL 60950-1	V	V	-	-
	Class I, Division 2	V	-	V	V
	UL 508	-	-	V	V
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ProView Series Ethernet Switches






Model Name		EKI-5725/I EKI-5728/I	EKI-5525/I EKI-5528/I	EKI-5729F/FI	EKI-5726/I	EKI-5726F/FI	EKI-5524SS/MM Series
Description		5/8-port Gigabit Ethernet ProView Switch	5/8-port Fast Ethernet ProView Switch	8-Port+2 SFP Gigabit Ethernet ProView Switch	16-port Gigabit Ethernet ProView Switch	16-port+2 SFP Gigabit Ethernet ProView Switch	4-port + 2 F Single/Multi-mode (SC/ST) Fast Ethernet ProView Switch
Interface	Ports Number	5/8	5/8	8	16	16	4
	10/100Base-T (X)	-	5/8	-	-	-	-
	100BaseFX	-	-	-	-	-	-
	10/100/1000Base-T (X)	5/8	-	8	16	16	-
	1000Base-SX/LX/LHX/ XD/ZX/EZX	-	-	2	-	2	-
	100FX Fiber, fixed	-	-	-	-	-	2
	100FX Fiber mode	-	-	-	-	-	Single/ Multi-Mode
	100FX Fiber connector type	-	-	-	-	-	SC/ ST type
Network Management	VIP Port	V	V	V	V	V	V
	Modbus TCP	V	V	V	V	V	V
	EtherNet/IP	EKI-5728I	-	EKI-5729FI	V	V	-
	Configuration	V	V	V	V	V	V
	SNMP	V	V	V	V	V	V
Power	2 x Unregulated 48 V_{DC}	V	V	V	V	V	V
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	-	-	-	-	-	-
	Relay Output	v	v	v	v	v	v
Mechanism	DIN-rail Mount	v	v	v	v	v	v
	Wall Mount	v	v	v	v	v	v
	Rack Mount	-	-	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30	IP30
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	V	V	V
	-40 ~ 75°C (-40 ~ 167°F)	EKI-5725I EKI-5728I	EKI-5525I EKI-5528I	EKI-5729FI	EKI-5726I	EKI-5726FI	EKI-5524SSI/ SSI-ST EKI-5524MMI/ MMI-ST
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-	-
Certification	CE	V	V	V	V	V	V
	FCC	V	V	V	V	V	V
	e-Mark	EKI-5728/I	-	V	-	-	-
	IECEx	V	V	V	V	V	V
	Class 1, Division 2	V	V	V	V	V	V
	ATEX	V	V	V	V	V	V
	UL 508	V	V	V	V	V	V
	EtherNet/IP	EKI-5728I	-	EKI-5729FI	-	-	-
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Unmanaged Ethernet Switches





Model Name		EKI-4524I/RI	EKI-7626C/CI	EKI-7629C/CI	EKI-7526I	EKI-2525/I EKI-2528/I
Description		24+2 SPF Port Unmanaged Industrial Ethernet Switch with Wide Temperature	16+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch	16-port Unmanaged Industrial Ethernet Switch	5/8-port Unmanaged Industrial Ethernet Switch
Interface	Ports Number	24/26	18	10	16	5/8
	10/100Base-T (X)	24	16	8	16	5/8
	100BaseFX	0/2	-	-	-	-
	10/100/1000Base-T (X)	-	2	2	-	-
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	2 (Combo)	2 (Combo)	-	-
	PoE (10/100 Mbps)	-	-	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-	-	-
	DI/DO	-	-	-	-	-
	Console	-	-	-	-	-
Network Management	Redundancy	-	-	-	-	-
	Diagnostics	-	-	-	-	-
	VLAN	-	-	-	-	-
	Configuration	-	-	-	-	-
	SNMP	-	-	-	-	-
	Security	-	-	-	-	-
	Traffic Control	-	-	-	-	-
Power	2 x Unregulated 12 ~ 48 V_{DC}	-	V	V	V	V
	1 x Unregulated 100 ~ 240 V_{DC}	V	-	-	-	-
	1 x Unregulated 100 ~ 240 V_{AC}	V	-	-	-	-
	Relay Output	V	V	V	V	V
Mechanism	DIN-rail Mount	-	V	V	V	V
	Wall Mount	-	V	V	V	V
	Rack Mount	V	-	-	-	-
	IP Level	IP30	IP30	IP30	IP30	IP30
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	-	V
	-40 ~ 75°C (-40 ~ 167°F)	V	V (EKI-7626CI)	V (EKI-7629CI)	V	V (EKI-2525I/ EKI-2528I)
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-	-	-
Certification	CE	V	V	V	V	V
	FCC	V	V	V	V	V
	UL/cUL 60950-1	-	V	V	-	V
	Class I, Division 2	-	-	-	-	V
	UL 508	-	-	-	V	-
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Media Converters

Model Name		EKI-2541M/MI/S/SI	EKI-3541M/S	EKI-2741F/FI/SX/SXI/LX/LXI
Description		10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters	10/100TX to Multi-mode / Single-mode SC Type Fiber Optic Industrial Media Converters	10/100/1000TX to Fiber Optic Gigabit Industrial Media Converters
Interface	Ports Number	2	2	2
	10/100Base-T (X)	1	1	-
	100BaseFX	1	1	-
	10/100/1000Base-T (X)	-	-	1
	1000Base-SX/LX/LHX/XD/ZX/EZX	-	-	1
	PoE (10/100 Mbps)	-	-	-
	PoE (10/100/1000 Mbps)	-	-	-
	DI/DO	-	-	-
	Console	-	-	-
Network Management	Redundancy	-	-	-
	Diagnostics	-	-	-
	VLAN	-	-	-
	Configuration	-	-	-
	SNMP	-	-	-
	Security	-	-	-
	Traffic Control	-	-	-
Power	2 x Unregulated 12 ~ 48 V_{DC}	V	V	V
	2 x Unregulated 100 ~ 240 V_{DC}	-	-	-
	2 x Unregulated 100 ~ 240 V_{AC}	-	-	-
	Relay Output	V	V	V
Mechanism	DIN-rail Mount	V	V	V
	Wall Mount	V	V	V
	Rack Mount	-	-	-
	IP Level	IP30	IP40	IP30
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	V	V
	-40 ~ 75°C (-40 ~ 167°F)	V (EKI-2541MI/SI)	-	V (EKI-2741FI/SXI/LXI)
	-40 ~ 85°C (-40 ~ 185°F)	-	-	-
Certification	CE	V	V	V
	FCC	V	V	V
	UL/cUL 60950-1	V	V	V
	Class I, Division 2	V	-	V
	UL 508	-	-	-
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EKI-6558TI
EKI-6559TMI

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

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

Features

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

Introduction

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

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100Base-T (X), 100Base-FX
	Transmission Speed	Up to 100 Mbps
Interface	Ethernet	M12, 4-pole D-coded, Female x 8
	Fiber Optic	LC type waterproof x 2, Multi-mode (EKI-6559TMI)
	Console	M12, 8-pole A-coded, Female x 1
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, Email Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP67, aluminum shell with solid mounting kits
	Dimensions (W x H x D)	193 x 176 x 62.5 mm (7.59" x 6.93" x 2.46")
	Mounting	Wall
Power	Power Consumption	Max. 8.1 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Power Connector	M12, 5-pole A-coded, male x 1
	P-Fail Output	1A @ 24 V_{DC}
	P-Fail Connector	M12, 8-pole A-coded, Female x 1
Protection	Power Reverse	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	388,201 hours (EKI-6558TI), 320,420 hours (EKI-6559TMI)
Certification	Safety	UL 508
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 61373
	Freefall	IEC 60068-2-32
	Vibration	IEC 61373
	Railway	EN50155, EN 50121-3-2, EN 50121-4

Ordering Information

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

EKI-6528TI
EKI-6528TPI

EN50155 8-port M12 Unmanaged Switch with Wide Temperature

EN50155 8-port M12 Unmanaged PoE Switch with Wide Temperature

Features

- Auto Bypass between Port 1 and Port 2
- EN50155 certified
- Wide redundant power design
- 8-port 10/100 Mbps M12 type connector with IP40 protection
- 4-port PoE type M12 (EKI-6528TPI)
- Dual redundant power input
- Supports wide operating temperature -40 ~ 75°C

Introduction

The EKI-6528TI and EKI-6528TPI are EN50155 certified industrial switches with IP40 protection and wide temperature support designed for railway applications. EKI-6528TPI provides four PoE ports that support IEEE 802.3af and can provide up to 15.4 watts of power per port. M12 connectors ensure highly reliable connectivity for industrial communication applications. With IP40 compact metal housings, these switches are protected against dusty environments and are a good fit for many industrial applications. Under no-power condition, 'Auto Bypass' function ensures the Ethernet signal connection through internal circuitry. This feature provides non-stop communication to rolling stocks even no power exists in some of the carriages.

Specifications

Communications	Standard	IEEE 802.3, IEEE 802.3u, IEEE 802.3x, IEEE 802.3af
	LAN	10/100Base-T (X)
	Transmission Speed	Up to 100 Mbps
Interface	Ethernet	M12, 4-pole D-coded, Female x 8
Mechanism	Enclosure	IP40 protected metal shell
	Dimensions (W x H x D)	92 x 180 x 42 mm (3.62" x 7.08" x 1.65")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 3.36 W (EKI-6528TI) Max. 72 W (EKI-6528TPI)
	Power Input	24 ~ 48 V_{DC}, redundant dual inputs (for EKI-6528TPI) 12 ~ 48 V_{DC}, redundant dual inputs (for EKI-6528TI)
	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
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	391,307 hours (EKI-6528TI); 348,384 hours (EKI-6528TPI)
Certification	Safety	UL 60950-1
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 61373
	Freefall	IEC 60068-2-32
	Vibration	IEC 61373
	Railway	EN50155, EN 50121-3-2, EN 50121-4

Ordering Information

Part Number	Description
EKI-6528TI	EN50155 8-port M12 Unmanaged Ethernet Switch
EKI-6528TPI	EN50155 8-port M12 Unmanaged PoE Switch

EKI-9312P

Industrial-Class 12 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+

Features

- All Gigabit connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4W power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9312P Gigabit managed PoE+ Ethernet switches come standard with 8 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9312P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

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

Specifications

Interface	I/O Port	8 x 10/100/1000Base-T/TX RJ-45 4 x 1000BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity / PoE
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System) EKI-9312P: ~203.42 Watts
	Power Input	48 (46 to 57 V) V_{DC} dual inputs (> 53 V_{DC} for PoE+ output recommended)
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD), Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4; EN50121-4; EN61000-4-5 (Surge), Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADUIS, TCACAS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9312-P0ID42E	Layer 2 Fastpath, 8 x GbE 100/1000Base-T with PoE+ 4 x GbE SFP w/ 48 V_{DC} Redundant Power Input

EKI-9316P

Industrial-Class 16 Port Managed DIN Rail Switch Full Gigabit Switch with PoE/PoE+

Features

- All Gigabit connections support dual ring protection and non-blocking traffic forwarding
- X-Ring Pro: recovery time within 20ms for 250 node connections
- IEEE 802.3at PoE+ to supply 30W power
- IEEE 802.3af PoE to supply 15.4W power
- IEEE 802.3af/802.3at per port with system PoE power management
- Dual power input, dual image for system reliability
- Operating temperature: -40 ~ 75°C

Introduction

The EKI-9316P Gigabit managed PoE+ Ethernet switches come standard with 12 10/100/1000BaseT(X), 802.3af (PoE), and 802.3at (PoE+) compliant Ethernet ports, and 4 fiber optic Gigabit Ethernet ports. The EKI-9316P PoE Ethernet switches provide up to 30 watts of power per PoE+ port for heavy-duty, industrial PoE devices, such as weather-proof IP surveillance cameras, high performance wireless access points, and rugged IP phones.

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

Specifications

Interface	I/O Port	12 x 10/100/1000Base-T/TX RJ-45 4 x 1000 BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity / PoE
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System) EKI-9316P: ~294.22 Watts
	Power Input	48 (46 to 57 V) V_{DC} dual inputs (> 53 V_{DC} for PoE+ output recommended)
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADUIS, TCACAS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9316-P0ID42E	Layer 2 Fastpath, 12 x GbE 100/1000Base-T with PoE+ 4 x GbE SFP w/ 48 V_{DC} Redundant Power Input

EKI-7659CPI

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

Features

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

Introduction

The EKI-7659CPI supports eight Power over Ethernet (PoE) ports and two 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 Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-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, 802.3ad, 802.3ab, 802.3af, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet), 2 x RJ45/SFP (mini-GBIC) combo ports, 6-pin removable screw terminal (Power&Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail, 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps), SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	116 W (Full load PoE)
	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 Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	190,200 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7659CPI	8FE + 2G Combo Port Managed PoE Ethernet Switch w/Wide Temp

EKI-2726FHPI

4G+2 SFP W/ 4 IEEE 802.3 High Power PoE Industrial Wide Temperature Switch

Features

- All Gigabit Ethernet ports for 4 Copper and 2 SFP
- Back-plane (Switching Fabric): 12Gbps
- Embedded 4 ports PoE inject function
- Provide 30W at 55V power output
- Redundant Power Design
- IP30 Chassis Design
- Supports operating temperatures from -40 ~ 75°C

Introduction

The EKI-2726 FHPI switch has 4 x 10/100/1000BASE-T Ethernet ports with PoE+ function and 2 x SFP sockets, it has been designed to work within a wide operating temperature range.This cost-effective solution, meets the high reliability requirements and demands of industrial applications. The equipment also meets the IEEE 802.3 at standard and can provide 30Watts output per PoE port.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab, 802.3z
	LAN	10/100/1000Base-T 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	10/100/1000T(X): RJ-45 x 4 SFP: Gigabit Base x 2
	LED Indicators	System: P1, P2, P-Fail, Per port: Link/Activity, Speed, PoE (1 to 4 ports)
Power	Power Consumption	5.5 watts @ $48V_{DC}$ (Ethernet only)
	Power Input	48 V_{DC} ($44V_{DC}$ to 57 V_{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	59.6 x 152 x 105 mm (2.35" x 5.98" x 4.13")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	MTBF	339,740 hours
Certification	Safety	UL/cUL508 Class I, Division 2, Groups A, B, C and D
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2726FHPI	4G+2 SFP Unmanaged Gigabit Switch with 4-port PoE+(IEEE 802.3af/at)

EKI-2525P
EKI-2526PI

5-port Industrial PoE Switch
6-port Industrial PoE Switch with Wide Temperature

Features

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

Introduction

The EKI-2525P 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 devoces 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 IEEE 802.3af 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)
	Transmission Speed	Up to 100 Mbps
Fiber Optics (EKI-252SPI)	Single-mode	1310 nm, Tx Power: -8/-15 dBm, Rx Sensitivity: -34 dBm, Parameters: 9/125 um
Interface	Connectors	PoE Ports: 4 (Ports 1 ~ 4) Ethernet x1 (EKI-2525P) 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-2526PI: 62.6 W (Full load PoE)
	Power Input	48 V_{DC} (EKI-2525P/EKI-2526PI), redundant dual inputs
	Power Output	15.4 W at 48 V (per PoE port)
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74") (EKI-2525P) 48.6 x 140 x 95 mm (1.91" x 5.51" x 3.74") (EKI-2526PI)
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse Polarity	Present
	Overload current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) (EKI-2525P) -40 ~ 75°C (-40 ~ 167°F) (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 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2525P	5-port Switch with 4 port-PoE
EKI-2526PI	6-port Switch with 4 port-PoE

EKI-2701HPI

IEEE 802.3af/at Gigabit PoE+ Injector with Wide Temperature

Features

- Supports 10/100/1000Base-T (X) for PoE+ OUT and Data IN
- IEEE 802.3af/at compliant, supports a full 30 watt output
- Power input (24 ~ 48 V_{DC}), inject 30 W for each port
- Provides slim size and DIN-rail/Wall mount with IP30 metal mechanism
- Supports operating temperatures from -40 to 75°C

Introduction

With PoE (Power over Ethernet) technology, we can transfer both data and electrical power to Ethernet-enabled devices using a standard CAT5 cable. EKI-2701HPI is compliant IEEE 802.3af/at and inject 30W for PD device. This product can operate in a wide range of Temp. between -40 to 75°C and support wide power input range between 24 to 48 V_{DC} .

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3af/at, 802.3ab
	LAN	10/100/1000Base-T (X)
	Transmission Distance	Up to 100 m
	Transmission Speed	up to 1000 Mbps
Interface	Connectors	PoE OUT: RJ45 DATA IN: RJ45 6-pin removable screw terminal
	LED Indicators	PWR1, PWR2, PoE status, Link/Activity
Power	Power Consumption	Max. 33.36 W @ 24 V_{DC} (Full load PoE)
	Power Input	24 ~ 48 V_{DC}, redundant dual power inputs
	Power Output	30 W @ 24 V_{DC}
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	1,419,817 hours
Certification	Safety	UL508
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2701HPI	PoE+ Injector, support a full 30 W output

EKI-9778

1U Rackmount Industrial-Class Switch with Combo Port Flexibility 24GbE + 4 10GbE Managed Switch

Features

- Switching architecture with 24 x GbE ports and 4 x 10GbE ports
- 16 x gigabit combo ports (1000BASE-T/TX or GbE SFP)
- 4 x 10 Gigabit SFP+ ports
- 2 x redundant power 110 ~ 220 V_{AC} input
- Fanless design
- IEEE1588 PTPv2 with 1-step precision clock
- 128 Gbps switch fabric capacity supported
- Embedded hardware monitor
- Operating temperature -10 ~ 60°C

FCC CE

Introduction

The EKI-9778 Industrial-Class switch represents the entry level of Advantech's rackmount industrial class switch portfolio; EKI-9778 Industrial-Class switch is designed for flexible installation, and can be deployed in demanding industrial environments. The EKI-9778 gigabit combo switch design makes network planning easy, and allows greater flexibility for users install up to 16 Gigabit Ethernet combo ports plus 8 Gigabit 1000Base-X and 4 10 Gigabit SFP+ ports, making EKI-9778 suitable for edge to core industrial networks. It integrates Layer 2 switching software, which is optimized for scale and performance, delivering wire speed across all ports up to 128Gbps for layer 2 traffic forwarding. In addition, the fanless convection design provides a high degree of reliability, operating under -10 ~ 60°C operating temperatures, and two built-in 110 ~ 220 V_{AC} input redundant power modules ensure vital network capabilities with minimum downtime.

Specifications

Interface	I/O Port	4 x 10GbE SFP+ slot 8 x 1000Base-X SFP 16 x Gigabit Combo Port (10/100/1000Base-T(X) or 1000Base-X SFP)
	Console port	RJ-45
	F/W upgraded	USB
	Power Connector	AC Socket
Physical	Enclosure	Metal Shell
	Installation	Rack-Mount
	Dimensions (W x H x D)	446 x 44 x 352 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm
	Port LED	Link / Activity / Speed
Environment	Operating Temperature	-10 ~ 60°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	5 ~ 95% (non-condensing)
	Humidity	5 ~ 95% (non-condensing)
Power	Power Consumption	~72 Watts Max
	Power Input	110 ~ 220 V_{AC} Redundant Inputs
Certification	EMI	FCC Part 15 Subpart B Class A, CE EN55022, EN55024
	Safety	EN 60950-1*
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADUIS, TCACAS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9778-C0SA820E	Layer 2 Fastpath, 8xGbE SFP slot + 16xGbE Combo Port + 4x(10GbE SFP+ slot) w/110 ~ 220 VAC Redundant Power Input

EKI-9312

Industrial-Class 12 Port Full Gigabit Managed DIN Rail Switch

Features

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

Introduction

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

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

Specifications

Interface	I/O Port	8 x 10/100/1000Base-T/TX RJ-45, 4 x 1000BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System)
	Power Input	24/48 V_{DC}, redundant dual inputs
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4; EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADUIS, TCACAS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access	SNMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9312-C0ID42E	Layer 2 Fastpath, 8xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 VDC Redundant Power Input

EKI-9316

Industrial-Class 16 Port Full Gigabit Managed DIN Rail Switch

Features

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

Introduction

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

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

Specifications

Interface	I/O Port	12 x 10/100/1000Base-T/TX RJ-45 4 x 1000 BASE-X SFP
	Console port	RJ-45
	F/W backup port	USB
	Power Connector	6-pin screw Terminal Block (including relay)
Physical	Enclosure	Aluminum Shell
	Protection Class	IP 30
	Installation	DIN Rail
	Dimensions (W x H x D)	86 x 165 x 125 (mm)
LED Display	System LED	PWR1, PWR2, SYS, CFG, Alarm and R.M.
	Port LED	Link / Speed / Activity
Environment	Operating Temperature	-40 ~ 75°C
	Storage Temperature	-40 ~ 85°C
	Ambient Relative Humidity	10 ~ 95% (non-condensing)
	Humidity	10 ~ 95% (non-condensing)
Power	Power Consumption	~ 21.82 Watts (System)
	Power Input	24/48 V_{DC}, redundant dual inputs
Certification	EMI	CE, FCC Class A
	Safety	UL60950 C1D2
	EMS	EN61000-6-4; EN61000-6-2; EN61000-4-2 (ESD) Level 4 EN61000-4-3 (RS) Level 3; EN61000-4-4 (EFT) Level 4 EN61000-4-5 (Surge) Level 4; EN61000-4-6 (CS) Level 3 EN61000-4-8 (Magnetic Field) Level 4; EN50121-4
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6
Security	Port Security	Static, Dynamic
	Authentication	802.1x (Port-Based, MAC-Based, MD5/TLS/TTLS/PEAP Encryption), RADUIS, TCACAS+
	ACL	1K rules
	Advanced Security	IP Source guard, ARP inspection, DHCP Snooping
Management	DHCP	Client, Server, Relay, Option66/67/82
	Access S	NMP v1/v2c/v3, WEB, Telnet, RMON, Standard MIB, Private MIB
	Security access	SSH2.0, SSL
	Software upgrade	TFTP, HTTP, Dual Image
	NTP	NTP client/server

Ordering Information

Part Number	Description
EKI-9316-C0ID42E	Layer 2 Fastpath, 12xGbE 100/1000Base-T + 4x GbE SFP w/ 24/48 VDC Redundant Power Input

EKI-7758F

4G+4 SFP Gigabit Managed Redundant Industrial Ethernet Switch

Features

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

Introduction

The EKI-7758F supports eight Gigabit ports with four Ethernet and four SFP. To create reliability in your network, the EKI-7758F comes equipped with a proprietary redundant network protocol -- X-Ring that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7758F also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	100Base-T (X), 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet : Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Gigabit Copper:10/100/1000 Mbps, Auto-Negotiation SFP: Up to 1000 Mbps
Interface	Connectors	4 x RJ45 (Ethernet) 4 x SFP (mini-GBIC) ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, R.M., PWR1, PWR2, P-Fail Gigabit Copper: Link/Activity, Speed SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial consloe, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 17 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	289,777 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950 Class I, Division 2
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7758F	4G+4 SFP Managed Gigabit Ethernet Switch

EKI-7656C/CI

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

Features

- 2 Gigabit Copper/SFP combo ports, plus 16 Fast Ethernet ports
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QOS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistic, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power inputs and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7656CI)

Introduction

The EKI-7656C supports 16 Fast Ethernet ports and 2 Gigabit combo ports. To create reliability in your network, the EKI-7656C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7656C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation, SFP: Up to 1000 Mbps
Interface	Connectors	16 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power&Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail Ethernet: Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Configuration	Web browser, Telnet, Serial consloe, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inpuds
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7656CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	295,000 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

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

EKI-7659C/CI

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

Features

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

Introduction

Th EKI-7659C supports eight Fast Ethernet ports and two Gigabit combo ports. To create reliability in your network, the EKI-7659C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7659C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	10/100/1000Base-T (X), Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7659CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

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

EKI-7657C/CI

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 Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Control: VLAN/GVRP, QoS, IGMP Snooping/Query, LACP, Rate Limit
- Security: IP/MAC and port binding, DHCP Server, IP access list, 802.1X, SSL, SNMPv3
- Diagnostic: Port Statistics, Port Mirroring, RMON, Trap, Email Alert, Syslog
- Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Operating temperature from -40 to 75°C (EKI-7657CI)

Introduction

The EKI-7657C supports seven Fast Ethernet ports and three 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 Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the 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 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	7 x RJ45 (Ethernet) 3 x RJ45/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 (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/ TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, Email Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F) (EKI-7657CI)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
Certifications	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7657C	7FE + 3G Combo Port Managed Ethernet Switch w/ 2 x DI/DO
EKI-7657CI	7FE + 3G Combo Port Managed Ethernet Switch w/ 2 x DI/DO and Wide Temp

EKI-7654C

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

Features

- 2 Gigabit Copper/SFP combo ports, plus 4 Fast Ethernet ports
- Full/half duplex mode flow control
- MDI/MDI-X auto crossover
- SFP socket for Easy and Flexible Fiber Expansion
- Redundancy: Gigabit X-Ring Pro (ultra high-speed recovery time < 20 ms), RSTP/STP (802.1w/1D)
- Management: Web, Telnet, Serial Console, SNMP
- Dual 12 ~ 48 V_{DC} power input and 1 relay output

Introduction

The EKI-7654C supports four Fast Ethernet ports and two Gigabit combo ports. To create reliability in your network, the EKI-7654C comes equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, the EKI-7654C also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3z, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X, 802.3ad, 802.3ab
	LAN	100Base-TX, 10/1000Base-T, Optional 100Base-FX, 1000Base-SX/LX/LHX/XD/ZX/EZX
	Transmission Distance	Ethernet: Up to 100 m (4- wire Cat.5e, Cat.6 RJ45 cable suggested for Gigabit port) SFP: Up to 110 km (depends on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: Up to 1000 Mbps
Interface	Connectors	4 x RJ45 (Ethernet) 2 x RJ45/SFP (mini-GBIC) combo ports 6-pin removable screw terminal (Power & Relay)
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision Gigabit Copper: Link/Activity, Speed (1000 Mbps) SFP: Link/Activity
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, SNTP, Syslog, E-Mail Alert, SNMP Trap, RMON
Mechanism	Enclosure	IP30, metal shell with solid mounting kits
	Dimensions (W x H x D)	79 x 152 x 105 mm (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 10.7 W
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	284,409 hours
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7654C	4FE + 2G Combo Port Managed Ethernet Switch

EKI-7559SI/MI
EKI-7554SI/MI

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

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

Features

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

Introduction

Both the EKI-7554SI/MI and EKI-7559SI/MI support two SC type Fiber ports, EKI-7554SI/MI four Fast Ethernet ports and EKI-7559SI/MI can support up to eight Fast Ethernet ports. To create reliability in your network, the EKI-7554SI/MI come equipped with a proprietary redundant network protocol -- X-Ring Pro that was developed by Advantech, which provides users with an easy way to establish a redundant Ethernet network with ultra high-speed recovery time less than 20 ms. Furthermore, EKI-7554SI/MI also supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.3ad, 802.1D, 802.1w, 802.1p, 802.1Q, 802.1X
	LAN	10/100Base-T (X), 100Base-FX
	Transmission Distance	Ethernet : Up to 100 m Multi-mode Fiber: Up to 2 km (EKI-7554MI) Single-mode Fiber: Up to 30 km (EKI-7554SI)
	Transmission Speed	Up to 100 Mbps
Interface	Connectors	4 x RJ45 ports (EKI-7554SI/MI) 8 x RJ45 ports (EKI-7559SI/MI) 2 x SC type fiber optic connectors
	LED Indicators	System: PWR, PWR1, PWR2, R.M., P-Fail 10/100T (X): Link/Activity, Duplex/Collision
	Console	RS-232 (RJ45)
Network Management	Configuration	Web browser, Telnet, Serial console, TFTP, SNMPv1/v2c/v3, Port Speed/Duplex Configuration, IPv6
	VLAN	IEEE 802.1Q, GVRP, Port-based VLAN
	Redundancy	Advantech X-Ring Pro (Recovery time < 20 ms at 250 pcs full loading ring structure), Dual Homing, Dual Ring, Couple Ring, 802.1w/D RSTP/STP
	Security	IP Access security, port security, DHCP Server, Port and IP Binding, 802.1X Port Access Control, SSL
	Traffic Control	IGMP Snooping/Query for multicast group management, Port Trunking, Static/802.3ad, LACP Rate limit and storm control, IEEE 802.1p QoS CoS/TOS/ DSCP priority queuing, IEEE 802.3x flow control
	Diagnostics	Port Mirroring, Real-time traffic statistic, MAC Address Table, 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 (3.11" x 5.98" x 4.13")
	Mounting	DIN-rail, Wall
Power	Power Consumption	Max. 7.7 W (EKI-7554SI/MI) Max. 8.4 W (EKI-7559SI/MI)
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs
	Fault Output	1 Relay Output
Protection	Power Reverse	Present
	Overload Current	Present
Environment	Operating Temperature	-40 ~ 75°C (-40 ~ 167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	262,230 hours (EKI-7554SI/MI) 264,964 hours (EKI-7559SI/MI)
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950 Class I, Division 2 (EKI-7559MI/SI)
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6 , EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7554SI	4FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
EKI-7554MI	4FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp

Part Number	Description
EKI-7559SI	8FE + 2-port Single-mode Fiber Managed Ethernet Switch w/Wide Temp
EKI-7559MI	8FE + 2-port Multi-mode Fiber Managed Ethernet Switch w/Wide Temp

EKI-5725/I
EKI-5728/I

5-port Gigabit Ethernet ProView Switch

8-port Gigabit Ethernet ProView Switch

EKI-5725/I EKI-5728/I

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5725I and EKI-5728I only)
- 12 ~ 48V_{DC} (8.4 ~ 52.8V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection
- e-Mark certification passed (EKI-5728/I only)

Introduction

The EKI-5725/I and EKI-5728/I are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5725/I and EKI-5728/I switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 802.3ab
	LAN	10/100/1000Base-T(X)
	Transmission Distance	Up to 100 m
	Transmission Speed	Up to 1000 Mbps
Interface	Connectors	EKI-5725/I: 5 x RJ45 EKI-5728/I: 8 x RJ45 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed
Switch Properties	MAC Table Size	EKI-5725/I: 2K EKI-5728/I: 8K
	Packet Buffer Size	EKI-5725/I: 1M bit EKI-5728/I: 4.1M bit
	Switching Capacity	EKI-5725/I: 10 Gbps EKI-5728/I: 16 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	EKI-5725/I: Max. 2 W EKI-5728/I: Max.5.2 W
	Power Input	12–48 V_{DC} (8.4–52.8 V_{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	EKI-5725/I: 27 x 120 x 84 mm EKI-5728/I: 43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5725 & EKI-5728: -10~60°C (14~140°F) EKI-5725I & EKI-5728I: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	EKI-5725/I: 5,168,110 hours EKI-5728/I: 4,176,861 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC, e-Mark (EKI-5728/I only)
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5725	5-port Gigabit Ethernet ProView Switch
EKI-5725I	5-port Gigabit Ethernet ProView Switch with Wide Temperature

Part Number	Description
EKI-5728	8-port Gigabit Ethernet ProView Switch
EKI-5728I	8-port Gigabit Ethernet ProView Switch with Wide Temperature

EKI-5525/I
EKI-5528/I

5-port Fast Ethernet ProView Switch

8-port Fast Ethernet ProView Switch

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5525I and EKI-5528I only)
- 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection

Introduction

The EKI-5525/I and EKI-5528/I are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5525/I and EKI-5528/I switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az
	LAN	10/100Base-T(X)
	Transmission Distance	Up to 100 m
	Transmission Speed	Up to 100 Mbps
Interface	Connectors	EKI-5525/I: 5 x RJ45 EKI-5528/I: 8 x RJ45 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100T (X): LNK/ACT, Speed
Switch Properties	MAC Table Size	EKI-5525/I: 2K EKI-5528/I: 8K
	Packet Buffer Size	EKI-5525/I: 1M bit EKI-5528/I: 128K bit
	Switching Capacity	EKI-5525/I: 1Gbps EKI-5528/I: 1.6 Gbps
	Jumbo Frame	EKI-5525/I: 9216 bytes EKI-5528/I: 2048 bytes
Power	Power Consumption	EKI-5525/I: Max. 2 W EKI-5528/I: Max.3.6 W
	Power Input	12–48 V_{DC} (8.4–52.8 V_{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	EKI-5525/I: 27 x 120 x 84 mm EKI-5528/I: 43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5525 & EKI-5528: -10~60°C (14~140°F) EKI-5525I & EKI-5528I: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	EKI-5525/I: 5,168,110 hours EKI-5528/I: 5,235,270 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5525	5-port Fast Ethernet ProView Switch
EKI-5525I	5-port Fast Ethernet ProView Switch with Wide Temperature

Part Number	Description
EKI-5528	8-port Fast Ethernet ProView Switch
EKI-5528I	8-port Fast Ethernet ProView Switch with Wide Temperature

EKI-5729F/FI

8-Port+2 SFP Gigabit Ethernet ProView Switch

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5729FI only)
- 12 ~ 48 V_{DC} (8.4 to 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection
- e-Mark certification passed

Introduction

The EKI-5729F/FI are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5729F/FI switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 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: 10/100/1000 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: UP to 1000 Mbps
Interface	Connectors	8 x RJ45 2 x SFP ports 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed SFP: LNK/ACT
Switch Properties	MAC Table Size	8K
	Packet Buffer Size	4.1M bit
	Switching Capacity	20 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	Max. 6.8 W
	Power Input	12~48 V_{DC} (8.4~52.8 V_{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	43 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5729F: -10~60°C (14~140°F) EKI-5729FI: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	3,858,286 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC, e-Mark
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5729F	8-port+2 SFP Gigabit Ethernet ProView Switch
EKI-5729FI	8-port+2 SFP Gigabit Ethernet ProView Switch with Wide Operating Temperature Range

EKI-5524SS/MM Series

4-port + 2x100FX port (Single/Multimode, SC/ST type), Fast Ethernet ProView Switch

EKI-5524SS Series

EKI-5524MM Series

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40~75°C operating temperature range (EKI-5524SSI/SSI-ST,EKI-5524MMI/MMI-ST only)
- 12 ~48 V_{DC} (8.4 ~52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12~48VDC power input and P-Fail relay
- Loop detection

Introduction

The EKI-5524SS/MM Series are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5524SS/MM Series switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az	
	LAN	10/100Base-T(X), 100Base-FX	
	Transmission Distance	Ethernet: Up to 100 m Multi-mode Fiber: Up to 2 km (EKI-5524MM Series) Single-mode Fiber: Up to 30 km (EKI-5524SS Series)	
	Optical Fiber	Multi-Mode (EKI-5524MM/MMI/MM-ST/MMI-ST) Wavelength:1310nm, Tx Power: -14/-20 dBm, Rx Sensitivity: -32 dBm,Parameters: 50/125 um, 62.5/125 um	Single-Mode (EKI-5524SS/SSI/SS-ST/SSI-ST) Wavelength: 1310 nm, Tx Power: -8/-15 dBm, Rx Sensitivity: -34 dBm,Parameters: 9/125 um
Interface	Connectors	4 x RJ45 ports 2 x SC/ST type fiber optic connectors 6-pin screw Terminal Block (including relay)	
	LED Indicators	P1,P2, P-Fail, Loop detection 10/100T(X): LNK/ACT, Speed	
Switch Properties	MAC Table Size	2K	
	Packet Buffer Size	1M bit	
	Switching Capacity	1.2 Gbps	
	Jumbo Frame	9216 bytes	
Power	Power Consumption	Max. 4 W	
	Power Input	12–48 V_{DC} (8.4–52.8 V_{DC}), redundant dual inputs	
	Fault Output	1 Relay Output	
Mechanism	Dimensions (W x H x D)	43 x 120 x 84 mm	
	Enclosure	IP30, metal shell with solid mounting kits	
	Mounting	DIN-Rail, Wall	
Protection	Reverse Polarity	Present	
	Overload Current	Present	
Environment	Operating Temperature	EKI-5524SS/SS-ST/MM/MM-ST: -10~60°C (14~140°F) EKI-5524SSI/SSI-ST/MMI/MMI-ST: -40~75°C (-40~167°F)	
	Storage Temperature	-40 ~ 75°C (-40 ~ 167°F)	
	Operating Humidity	10 ~ 95% (non-condensing)	
	Storage Humidity	10 ~ 95% (non-condensing)	
	MTBF	144,890 hours	
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX	
	EMC	CE, FCC	
	EMI	EN 55011/55022 Class A, EN 61000-6-4, FCC Part 15, Subpart B Class A	
	EMS	EN61000-4-2 (ESD) Level 3, EN61000-4-3 (RS) Level 3, EN61000-4-4 (EFT) Level 3, EN61000-4-5 (Surge) Level 3 EN61000-4-6 (CS) Level 3, EN61000-4-8 (Magnetic Field) Level 3	
	Shock	IEC 60068-2-27	
	Freefall	IEC 60068-2-32	
	Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-5524SS/SSI	4-port + 2x100FX port (Single-mode, SC type), Fast Ethernet ProView Switch / with Wide Temperature
EKI-5524MM/MMI	4-port + 2 x100FX port (Multi-mode,SC type), Fast Ethernet ProView Switch / with Wide Temperature

Part Number	Description
EKI-5524SS-ST/SSI-ST	4-port + 2 x100FX port (Single-mode,ST type), Fast Ethernet ProView Switch / with Wide Temperature
EKI-5524MM-ST/MMI-ST	4-port + 2 x100FX port (Single-mode,ST type), Fast Ethernet ProView Switch / with Wide Temperature

EKI-5726F/FI

16-port+2 SFP Gigabit Ethernet ProView Switch

Features

- Communicates with SCADA software via Modbus/TCP
- Communicates with NMS (Networking management system) via SNMP
- Port-based QoS for deterministic data transmission
- -40 ~ 75°C operating temperature range (EKI-5726FI only)
- 12 ~ 48 V_{DC} (8.4 ~ 52.8 V_{DC}) wide-range power input
- EMS level 3 protection for extreme outdoor environments
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- Jumbo Frame Support (Up to 9,216 Bytes)
- Supports redundant 12 ~ 48 V_{DC} power input and P-Fail relay
- Loop detection

Introduction

The EKI-5726F/FI are the world's first convergence switches for process control and IT networking management. This series uses Modbus/TCP to communicate with the SCADA software and SNMP to communicate with the NMS (Networking Management System) at the same time, thereby allowing full read control over the devices either for control engineers or for IT. The devices come with the Port-based QoS for deterministic data transmission allows the priority ports to prioritize the traffic coming over those ports and delay the less immediately necessary data over the remaining ports. EKI-5726F/FI switches use the highest quality components, to enable the range to operate in temperatures of between -40 and 75°C along with EMS Level 3 protection to repel electromagnetic interface for industrial resistance.

Specifications

Communications	Standard	IEEE 802.3, 802.3u, 802.3x, 802.1p, 802.3az, 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: 10/100/1000 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation Gigabit Fiber: UP to 1000 Mbps
Interface	Connectors	16 x RJ45 2 x SFP ports 6-pin removable screw terminal (power & relay)
	LED Indicators	P1, P2, P-Fail, Loop detection 10/100/1000T(X): LNK/ACT, Speed SFP: LNK/ACT
Switch Properties	MAC Table Size	8K
	Packet Buffer Size	4.1M bit
	Switching Capacity	36 Gbps
	Jumbo Frame	9216 bytes
Power	Power Consumption	Max. 9.6W
	Power Input	12~48 V_{DC} (8.4~52.8 V_{DC}), redundant dual inputs
	Fault Output	1 Relay Output
Mechanism	Dimensions (W x H x D)	74 x 120 x 84 mm
	Enclosure	IP30, metal shell with solid mounting kits
	Mounting	DIN-Rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
Environment	Operating Temperature	EKI-5726F: -10~60°C (14~140°F) EKI-5726FI: -40~75°C (-40~167°F)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	10 ~ 95% (non-condensing)
	Storage Humidity	10 ~ 95% (non-condensing)
	MTBF	2,788,343 hours
Certification	Safety	IEC/EN 60950-1, UL508, Class 1 Division 2, IECEx, ATEX
	EMC	CE, FCC
	EMI	FCC Part 15 Subpart B Class A, EN 55011/55022 Class A, EN 61000-6-4
	EMS	EN 61000-4-2 (Level 3), EN 61000-4-3 (Level 3), EN 61000-4-4 (Level 3), EN 61000-4-5 (Level 3), EN 61000-4-6 (Level 3), EN 61000-4-8 (Level 3)
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-5726F	16-port+2 SFP Gigabit Ethernet ProView Switch
EKI-5726FI	16-port+2 SFP Gigabit Ethernet ProView Switch with Wide Operating Temperature Range

EKI-7629C/CI

8+2G Combo Port Gigabit Unmanaged Industrial Ethernet Switch

Features

- 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 and Wall mount
- Supports Dual 12 ~ 48 V_{DC} power input and 1 relay output
- Supports wide operating temperatures from -40 to 75°C (EKI-7629CI)

Introduction

Aside from 2 Gigabit fiber optic/copper combo ports, the EKI-7629C/CI comes equipped with 8 x 10/100Base-TX fast Ethernet ports. Traditional RJ45 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-7629C/CI includes a switch controller that can automatically sense transmission speeds (10/100 Mbps) The RJ45 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

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 RJ45 cable suggested for Gigabit port) Gigabit Fiber: Up to 110 km (depending on SFP)
	Transmission Speed	Ethernet: 10/100 Mbps Auto-Negotiation Gigabit Copper: 10/100/1000 Mbps, Auto-Negotiation SFP: Up to 1000 Mbps
Interface	Connectors	8 x RJ45 (Ethernet) with 2 x RJ45/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 (1000 Mbps) Gigabit SFP: Link/Activity
Power	Power Consumption	Max. 6.8 W
	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 (3.11" x 5.98" x 4.13")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse Polarity	Present
	Overload Current	Present
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
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-7629C	8+2G Combo Port Unmanaged Ethernet Switch
EKI-7629CI	8+2G Combo Port Unmanaged Ethernet Switch w/ Wide Temp

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

Introduction

The EKI-2525/2528 supports a Fast Ethernet solution. 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 Resetable 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 RJ45 (EKI-2528) or 5 x RJ45 (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. 3.9 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 (1.46" x 5.51" x 3.74")
	Enclosure	IP30, Metal shell with solid mounting kits
	Mounting	DIN-rail, Wall
Protection	Reverse Polarity	Present
	Overload current	Present
Environment	Operating Temperature	-10 ~ 60°C (14 ~ 140°F) -40 ~ 75°C (-40 ~ 167°F), (EKI-2525I and EKI-2528I)
	Storage Temperature	-40 ~ 85°C (-40 ~ 185°F)
	Operating Humidity	5 ~ 95% (non-condensing)
	Storage Humidity	0 ~ 95% (non-condensing)
	MTBF	388,566 hours (EKI-2528) 402,589 hours (EKI-2525)
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950 Class I, Division 2
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8
	Shock	IEC 60068-2-27
	Freefall	IEC 60068-2-32
	Vibration	IEC 60068-2-6

Ordering Information

Part Number	Description
EKI-2525	5-port Ethernet Switch
EKI-2525I	5-port Ethernet Switch w/ Wide Temp

Part Number	Description
EKI-2528	8-port Ethernet Switch
EKI-2528I	8-port Ethernet Switch 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 and Panel mount
- Supports wide operating temperatures from -40 to 75°C (EKI-2541MI/SI)

Introduction

The 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, the 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 to 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)

The EKI-2541M/2541S is an enhanced Ethernet to fiber-optic converter. Aside from its standard features, the versatile the 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 the 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	IEEE 802.3, 802.3u, 802.3x	
	LAN	10/100Base-T (X), 100Base-FX	
	Transmission Distance	Ethernet: Up to 100 m; Fiber: Multi-mode: up to 2 km; Fiber: Single-mode: up to 30 km	
	Transmission Speed	Up to 100 Mbps	
	Optical Fiber	Multi-mode (EKI-2541M/MI) Wavelength: 1310 nm Tx Power: -14/-20 dBm Rx Sensitivity: -31 dBm Parameters: 50/125 um,62.5/125 um	Single-mode (EKI-2541S/SI) Wavelength: 1310 nm Tx Power: -8/-15 dBm Rx Sensitivity: -34 dBm Parameters: 9/125 um
Interface	Connectors	1 x RJ45, 1 x SC type fiber connector, 6-pin removable screw terminal (power)	
	LED Indicators	P1, P2, P-Fail, Ethernet: 10/100 m, LNK/ACT, Fiber: HDX/FDX, LNK/ACT	
	DIP Switch	Port/Power Alarm, LFP; Fiber: HDX/FDX, Converter/Switch	
Power	Power Consumption	Max. 2.7 W	
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs	
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")	
	Mounting	DIN-rail, Wall	
	Enclosure	IP30, Metal shell with solid mounting	
Protection	Power Reverse	Present	
	Overload current	Present	
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 hours	
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A	
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8	
	Shock	IEC 60068-2-27	
	Freefall	IEC 60068-2-32	
	Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-2541M	Ethernet to Multi-mode Fiber Converter
EKI-2541MI	Ethernet to Multi-mode Fiber Converter w/ Wide Temp.

Part Number	Description
EKI-2541S	Ethernet to Single-mode Fiber Converter
EKI-2541SI	Ethernet to Single-mode Fiber Converter w/ Wide Temp.

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 and Wall mount
- Provides Link Fault Pass-through (LFP)
- Jumbo Frame: 9K bytes

Introduction

The EKI-2741 is designed to convert Gigabit Ethernet networks to Gigabit fiber networks by transparently converting Ethernet signals to optic signals. Therefore, the 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 the 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

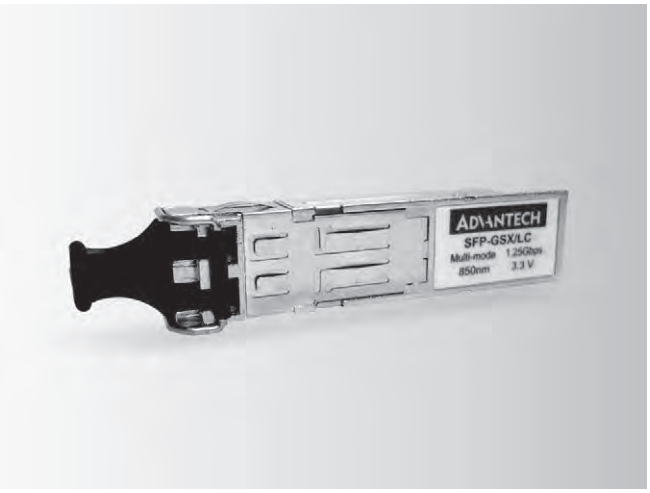
Communications	Standard	IEEE 802.3, 802.3u, 802.3ab, 802.3x, IEEE 802.3z	
	LAN	10/100/1000Base-T (X), 1000Base-SX or 1000Base-LX	
	Transmission Distance	Ethernet: Up to 100 m Fiber: Multi-mode: Up to 550 m Single-mode: Up to 10 km (EKI-2741LX) or up to 110 km (EKI-2741F) SFP: Up to 110 km (EKI-2741F)	
	Transmission Speed	Up to 1000 Mbps	
	Optical Fiber	Multi-mode (EKI-2741SX) Wavelength: 850 nm Tx Power: -4/-9.5 dBm Rx Sensitivity: -18 dBm Parameters: 50/125 um, 62.5/125 um	Single-mode (EKI-2741LX/LXI) Wavelength: 1310 nm Tx Power: -3/-9.5 dBm Rx Sensitivity: -20 dBm Parameters: 9/125 um
Interface	Connectors	1 x RJ45, 1 x SC type fiber connector (EKI-2741SX/LX) 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)	
	Power Input	12 ~ 48 V_{DC}, redundant dual inputs	
Mechanism	Dimensions (W x H x D)	37 x 140 x 95 mm (1.46" x 5.51" x 3.74")	
	Enclosure	IP30, Metal shell with solid mounting kits	
	Mounting	DIN-rail, Wall	
Protection	Power Reverse	Present	
	Overload current	Present	
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 hours (EKI-2741F); 525,300 hours (EKI-2741SX/LX)	
Certification	Safety	UL 60950-1, CAN/CSA-C22.2 No.60950	
	EMI	FCC Part 15 Subpart B Class A, EN 55022 Class A	
	EMS	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8	
	Shock	IEC 60068-2-27	
	Freefall	IEC 60068-2-32	
	Vibration	IEC 60068-2-6	

Ordering Information

Part Number	Description
EKI-2741F	Giga Ethernet to SFP Fiber Converter
EKI-2741SX	Giga Ethernet to 1000Base-SX Fiber Converter
EKI-2741LX	Giga Ethernet to 1000Base-LX Fiber Converter

Part Number	Description
EKI-2741FI	Giga Ethernet to SFP Fiber Converter w/ Wide Temperature
EKI-2741SXI	Giga Ethernet to 1000Base-SX Fiber Converter w/ Wide Temperature
EKI-2741LXI	Giga Ethernet to 1000Base-LX Fiber Converter w/ Wide Temperature

SFP Transceiver Modules



Features

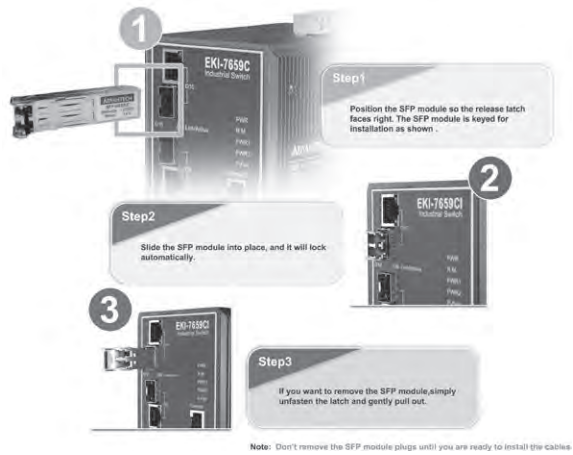
- Industry standard small form pluggable (SFP) package
- Immovable lock design
- Hot pluggable
- Duplex LC connector
- Full duplex speeds support
- TTL signal detect indicator
- 3.3 V_{DC} power supply
- Industry leading EMI performance for high port density
- Class 1 laser product complies with EN 60825-1
- 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 IEEE 802.3z Gigabit Ethernet Standards. Advantech's SFP transceivers ensure your networks operate with maximum performance, reliability, and flexibility.

Specifications

Category	Distance	Model Name	Wavelength	TX Power	RX Sens	Voltage	Operating Temp
100Base-FX	M.M. (2km)	SFP-FXM/LC-AE	1310 nm	-14dBm ~ -20dBm	-31dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
	M.M. (2km)	SFP-FXM/LCI-AE					
	S.M. (30km)	SFP-FXS/LC-30E	1310 nm	-8 dBm ~ -15dBm	-34dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
	S.M. (30km)	SFP-FXS/LCI-30E					
1000Base	SX (550m)	SFP-GSX/LC-AE	850 nm	-4 dBm ~ -9.5dBm	-18dBm (Min)	3.3V	0 to 70°C (-20 to 85°F)
		SFP-GSX/LCI-AE					
	LX (10 km)	SFP-GLX/LC-10E	1310 nm	-3 dBm ~ -9.5dBm	-20dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-10E					
	LX (20 km)	SFP-GLX/LC-20E	1310 nm	-2 dBm ~ -8dBm	-23dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-20E					
	LX (40 km)	SFP-GLX/LC-40E	1310 nm	+1 dBm ~ -4dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GLX/LCI-40E					
	XD (50km)	SFP-GXD/LC-50E	1550 nm	+1 dBm ~ -4dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GXD/LCI-50E					
	ZX (70km)	SFP-GZX/LC-70E	1550 nm	+5 dBm ~ 0dBm	-24dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GZX/LCI-70E					
	EZX (110km)	SFP-GZX/LC-110E	1550 nm	+5 dBm ~ 0dBm	-30dBm (Min)	3.3V	0 to 70°C (-40 to 85°F)
		SFP-GZX/LCI-110E					
1000Base	RJ45 (100m)	SFP-GTX/RJ45-AE				3.3V	0 to 70°C



Ordering Information

Part Number	Power Supply
SFP-FXM/LC	100Base-FX Multi-mode SFP module
SFP-FXS/LC-30E	100Base-FX Single-mode SFP module
SFP-GSX/LC	1000Base-SX Multi-mode SFP module
SFP-GLX/LC-10E	1000Base-LX Single-mode SFP module (10 km)
SFP-GLX/LC-20E	1000Base-LX Single-mode SFP module (20 km)
SFP-GLX/LC-40E	1000Base-LX Single-mode SFP module (40 km)
SFP-GXD/LC-50E	1000Base-XD Single-mode SFP module (50 km)
SFP-GZX/LC-70E	1000Base-ZX Single-mode SFP module (70 km)
SFP-GTX/RJ45	1000Base RJ45 SFP module