

Industrial Ethernet Switches

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Ethernet Switches The Extending Management

Introduction



Recently, Ethernet is being employed on a wider basis in factory automation, it is imperative that Ethernet deliver these same characteristics. Industrial Ethernet switches were designed for environments that are not favorable to commercial switches. This can include environments with temperature extremes, high vibration and severe electrical noise.



SUNIX has listened to the market and has responded by introducing its latest generation of Industrial Ethernet infrastructure products. SUNIX Ethernet Switches (ESW Series) are designed focus on Ethernet deployment in automation applications and specially developed for industrial Ethernet applications with all concerns for industrial environments taken into consideration. The advanced management features, ELITE-Ring[™] (communication redundancy technology), easy configuration and robust mechanical form factors enable quick Ethernet installation for factory, transportation, building and utility automation applications. Redundant power inputs and relay output alarm provide the possibility to build an on-site alarm system. SUNIX switches are ideal for any application where performance demands are highest, environments are harsh and operations are nonstop.

To meet the variety of performance & application requirements, SUNIX offer three major categories of Switches. Feel free to consult with SUNIX to get the best possible solution to suit your application needs.

- SNMP Managed Ethernet Switches
- Lite-Managed Ethernet Switches
- Un-managed Switches

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Deterministic Ethernet

The most important requirement in Industrial applications is that the network should be deterministic, which means resilient to any hardware and software failovers. SUNIX switches are designed and made for 24/7 continuous operations with absolute resilience. With RSTP, ELITE Ring, Ring Coupling, and Dual Homing technology, the switches will automatically select an alternative route to transmit the data within 10ms if the original route has been blocked and notify the administrator simultaneously. Most importantly, the security of your data is never at any risk. Furthermore, ESW series always remains operational from the disturbance of vibration, impact of shock, and environment of hazardous temperature (-10 °C ~70 °C). SUNIX enables you to build up a network that is stable, secured and deterministic.

Management SUNIX Commander PRO (Windows Utility)

SUNIX managed switches come with the convenient Windows based utility. It can configure multiple devices at the same time, which give an upper hand to other management tools, such as WEB, CLI, and SNMP. This utility can not only discover the switches connected in the LAN but can managed them same time via group IP settings, group firmware upgrade, group configuration backup/restore.

Auto-Topology map is the unique feature that outclassed the competition. This feature provides you instant network map on your screen with all the basic switch details. An alarming event can also be noticed on the map by color change and blinking.

Secured Web Access

SUNIX managed switches can be managed via web interface. To provide maximum security of the web access, we implement HTTPS (Hypertext Transfer Protocol over Secure Socket Layer) and SSH (Secure Shell). HTTPS protocol is built into browser that encrypts and decrypts user page requests as well as the pages that are returned by the web server. SUNIX also supports SSH console. The SSH connection can secure all the configuration commands you sent to the switches. SSH is a client/ server architecture in which Switch is the SSH server. PC must install SSH client first to perform management functions



Command Line Interface (CLI)

The Command Line Interface (CLI) is most famous among the network administrators specially having background from Telecommunication networks. The user interface to the switch's embedded software system. A CLI is used whenever a large vocabulary of commands or queries, coupled with a wide (or arbitrary) range of options, can be entered more rapidly as text than with a pure GUI. CLI is also beneficial to people with visual disability, since the commands and feedbacks can be displayed using Refreshable Braille displays.

Fiber Optics for Bandwidth, Distance Extension And Total Immunity

Implementing fiber optics to Switches allows not only distance extension but for harsh environments it provides total immunity against EMI/RFI interferences and enhanced security along with higher communication bandwidth. Thus device server with fiber optics can be used without risk in hazardous environments with no EMC emission, no ground loops, and immunity against lightening and high voltage. To enhance the communication solution, deployment of fiber optic is best choice.

Fiber optics also provides dedicated bandwidth solution without any variation thus enhancing the network performance. Now you can extend your networks without limitation, just use the fiber ports of the Switch and no place is out of reach.

Communication Redundancy

Always active network is critical for industrial applications. RSTP & STP are the standard functions to provide resilience to corporate or commercial network, but when we talk about mission critical and/or industrial networks, these two standards merely come near to the requirements. Industrial networks required the technology that can secured their every bit of data over the network. Equipment providers keep developing technologies to meet the requirements. SUNIX leads the way by offering the shortest recover time (less than 10ms) in case of any node failure. SUNIX engineers achieved this remarkable target to display their grip and understanding of the technology, and commitment for exceeding the customer's requirement.

SUNIX ELITE-Ring meets up the fastest failover time in the world, less than 10 milliseconds in a ring topology.

SUNIX Managed switches are equipped with ELITE-Ring[™] feature, which provides Industrial Networks with high-speed communication redundancy. ELITE-Ring employs a ring structure of either copper or fiber optic cable or combination of both. Ring Coupling and Dual Homing are additional features that enhanced the network reliability.

ELITE-RING[™]

Redundancy is always a primary consideration for developing secure and reliable industrial networks. SUNIX Managed Switches are equipped with ELITE-Ring[™] feature which provides Industrial Networks with high-speed communication redundancy. A network of up to 300 switches can recover in less than 10ms. ELITE-Ring[™] employs a ring structure of either copper or fiber optic cable or combination of both by using two ports of each switch in a ring network.



RING COUPLING

It may not be convenient to connect all devices in the system as a big redundant ring within a network since some devices could be located in a remote area. The ring coupling function of ELITE-Ring can separate distributed devices into separate smaller redundant rings.





DUAL HOMING

In LANs, dual-homing is a network topology that adds an additional reliability by allowing a device to be connected to the network by way of two independent connection points (points of attachment). One access point is the primary operating connection, and the other is a standby or back-up connection that is activated in the event of a failure of the operating connection.

A dual-homing switch, with two attachments into the network, offers two independent media paths and two upstream switch connections. Loss of the Link signal on the operating port connected upstream indicates a fault in that path, and traffic is quickly moved to the standby connection to accomplish a fault recovery.

- RECOVERY TIME BASE-ON SWITCH A/B RSTP RECOVERY TIME
- UNINTERRUPTED DATA-FLOW
- PERMANENT LINK CONNECTIVITY
- USER FRIENDLY INTERFACE WITH SIMPLE CONFIGURATION

Port Trunking

Port Trunking allows users to group multiple Ethernet ports to increase the linking bandwidth. The aggregated ports can be treated as one physical port so that the bandwidth is higher than the individual single Ethernet ports. The member ports of the same trunk group ban balance the loading and backup for each other. This feature is usually used when higher bandwidth is needed for the backbone network. SUNIX Managed switches meet the IEEE802.3ad standard, which means compatible to work with non-industrial backbone core switches.

Port Security

To enhance the security to access the switch's management, port security feature provided in the managed switches. It is also known as Port and MAC binding. The users can permit specific MAC address(es) to the specific port(s) by add the MAC and Port binding entry/entries to the port security table. Once activated, only PC with the available MAC address can access the network through the switch. The PCs with other MAC address will be denied for any access.



IGMP Snooping

With IGMP snooping, multicast traffic of a group is only forwarded to ports that have members of that group. IGMP Snooping generates no additional network traffic, allowing you to significantly reduce multicast traffic passing through your switch.



VLAN

Support Interoperable IEEE Standard - 802.1Q and GVRP, thus keep consistent VLAN group cross switch.

- Open IEEE802.1Q protocol 1.
- 2. Open trunk link
- Setup access link 3.

QoS / ToS

The primary goal of QoS is to provide traffic priority including dedicated bandwidth, controlled jitter and latency (required by some real-time and interactive traffic), and improved loss characteristics.

Port Mirroring

It allows you to monitor traffic on your network by copying traffic from monitored ports to the mirror port.

Port Trunking

Port Trunking is a method which specifies how to create a single high-speed logical link that combines several low-speed physical links.

RADIUS

RADIUS is the authentication, authorization, and accounting protocol that per-port configuration to control user use network resource enhanced the security for an unauthorized access.

Warning by E-mail and Relay Output



Warning by Email				
Switch Event	Port Event			
Cold Start	Link-on			
Power Transition (onoff)	Link-off			
ELite Ring Staus Changed				
Authentication Failure				
Warning by Relay Output				

Switch Event	Port Event
Power Failure	Port Link Down/Brolen













_Gigabit Managed Ethernet Switches

Model		ESW-5162-GP	ESW-5242-GP			
Product						
Description		Industrial 16-port 10/100Base-TX + 2-port Gigabit Combo Managed Switch	Industrial 24-port 10/100Base-TX + 2-port Gigabit Combo Managed Switch			
	Total Ports	18 ports	26 ports			
Interface	10/100 RJ45 Ports	16 ports	24 ports			
interface	10/100/100 RJ45 Ports	2 ports	2 ports			
	1000SX/LX Ports	2-port	2-port			
Communication	Standards	IEEE802.3, IEEE802.3u, IEEE802.3z, II IEEE802.1d, IEEE802.1w, IEEE802.1p,	EEE802.3ab, IEEE802.3ad, IEEE802.3x, IEEE802.1Q, IEEE802.1x			
Communication	Transmission Speed	10/100/1000 Mbps				
	Transmission Distance	RJ45 up to 100m; Fiber from 2km to 80km				
Diagnostics		Alarm Relay Output, Alarm LED, E-mail Warning, Port mirroring, SNMP Traps				
	Configuration	Web browser, Telnet, Serial Console, SNMP, SUNIX Commander Pro (Windows utility)				
Notwork Control	Redundancy	SUNIX's ELITE-Ring with recovery time	e less than 10ms, STP and RSTP			
& Management	VLAN	IEEE802.1Q Tagged VLAN and Port ba	ased VLAN			
5	Security	IP Security, MAC based Security, RADI	US Server			
	Traffic Control	Rate Limiting, Port Lock, IP address, D	HCP, TFTP, SNTP, QoS/ToS			
	Device Management	Broadcast Storm Protection and Port I	oreak Alarm			
	Redundancy	Dual Power Inputs (Terminal Block & I	DC Jack type)			
Power	Connectors	6-pin Removable Terminal Block + DC	Block + DC Jack			
	Inputs	12~48VDC (24VDC)				
	Consumption	18 Watts Maximum				
	ESD	4000VDC (Ethernet Ports)				
Protection	Surge	2000VDC (Power)				
	Reverse Power	Present				
	Dimensions	280 x 44 x 440 mm (D x W x H)				
Mechanical	Enclosure					
		Rackmount (20)				
Environment	Operating temperature					
Environment	Storage Temperature	109 to 95%RH				
	Safety		60950			
	Hazardous Location	ULOUY5U, UL5U8, CAN/CSA-CZ2.2 N0.60950				
Certifications	FMC	FCC Part 15_CISPR (EN55022) Class A	CE			
certifications	Shock	IEC60068-2-27				
	Free-fall / Vibration	IEC60068-2-32 / IEC60068-2-6				
WARRANTY		5 Years				
		5 .00.5				

Note: Please check the availability for fiber transceiver for different long-haul distances.

_Gigabit Managed Redundant

Model		ESW-8082-GT Series	ESW-8082-GP Series	
Product				
Description		Industrial 8 ports 10/100Base-T(X) + 2 ports 10/100/1000Base-T(X) Ethernet Switch	Industrial 8 ports 10/100Base-T(X) + 2 ports 1000Base-SX / LX (SEP Type) Ethernet Switch	
Total ports			10 ports	
lotarporto	10/100Base T(X)	8 ports	8 ports	
Interface	10/100/1000Base T(X)	2 ports		
	1000Base FX		2 ports	
Alarm Contact	1000buse IX	1 Configurable Relay O		
Alum contact	Multi-mode		50 / 125 µm: Standard 2 km	
Cable Length	Single-mode	_	9 / 125 µm: Standard 30 km	
	Standards	IEEE802 3 IEEE802 3ad IEEE802 3u IEEE8	0.2 Sy [EEE802 1p [EEE802 10 [EEE802 1W]	
	Podundancy	SUNIX's Elito Pipa with	recovery time loss than 10ms STP and PSTP	
	IGMP Spooning	IGMP V1 /V2 / V3		
Notwork Control				
& Management	Socurity	IR Security MAC based	Security PADILIS Server	
j	Traffic Control	Pate Limiting Port Lock		
	Configuration	Web browser Telpet Sc	, QUS/103	
	configuration	Alarm Bolay Output, Al	and Console, Silver, and Windows Other	
	Diagnostics	SNMP Traps		
	Device Management	Broadcast Storm Protec	tion and Port break Alarm	
	Redundancy	Dual Power Inputs		
Power	Connectors	7-pin Removable Termir	nal Block + DC Jack	
TOWER	Inputs	12~48VDC (24VDC)		
	Consumption	9 Watts Max		
	ESD	4000VDC (Ethernet Por	ts)	
Protection	Surge	2000VDC (Power)		
	Reverse Power	Present		
	Dimensions	56.5 x 110 x 150 mm (D x W x H)	
Mechanical	Enclosure	IP30 Aluminium		
	Mounting	DIN Rail and Wall Mour	ntable	
	Operation Temperature	Standard 0°C to 60°C / Extend -40°C to 80°C		
Environment	Operation Humidity	5% to 95%RH		
	Storage Temperature	e - 40°C to 85°C		
	Safety	UL60950, CAN/CSA-C2	2.2 No.60950	
	Hazardous Location	UL/cUL Class1. Div 2		
Certifications	EMC	FCC Part 15. CISPR (ENS	5022) Class A, CE	
	Shock	IEC60068-2-27	· · · · · · · · · · · · · · · · · · ·	
	Free-fall / Vibration	IFC60068-2-32 / IFC60	068-2-6	
WARRANTY		5 years		

Note : Please check the availability for fiber transceiver for different long-haul distances.





Model ESW-8062-GM Series ESW-8062-GS Series		ESW-8062-GS Series	ESW-8062-GT Series			
Product						
Description		ndustrial 6 ports 10/100Base- (X) + 2 ports 1000Base-SX Multi-Mode) Ethernet Switch Industrial 6 ports 10/100Base- T(X) + 2 ports 1000Base-LX (Single Mode) Ethernet Switch		Industrial 6 ports 10/100Base-T(X) + 2 ports 10/100/1000Base-T(X) Ethernet Switch		
Total ports		8 ports	8 ports	8 ports		
	10/100Base T(X)	6 ports	6 ports	6 ports		
Interface	10/100/1000Base T(X)	_	_	2 ports		
	1000Base FX	2 ports	2 ports			
Alarm Contact	1	1 Configur	able Relay Outputs	1		
	Multi-mode	50 / 125 μ m: Standard 2 km	_	_		
Cable Length	Single-mode	. ,	_			
	Standards	IEEE802.3, IEEE802.3ad, IEEE802.3u, IEEE802.3x, IEEE802.1p, IEEE802.1O, IEEE802.1W				
	Redundancy	SUNIX's ELite Ring with recovery time less than 10ms, STP and RSTP				
	VLAN	IEEE802.1Q Tagged VLAN and Port based VLAN				
	SNMP	V1 / V2c / V3				
	IGMP Snooping	IGMP V1 /V2 / V3				
Network Control	RMON	RMON Gro	up 1, 2, 3, 9			
& Management	Security	IP Security,	MAC based Security, RADIUS Se	rver		
	Traffic Control	Rate Limitir	ng, Port Lock, QoS/ToS			
	Configuration	Web brows	ser, Telnet, Serial Console, SNMP,	and Windows Utility		
	Diagnostics	Alarm Rela SNMP Trap	y Output, Alarm LED, E-mail Wa s	rning, Port mirroring,		
	Device Management	Broadcast Storm Protection and Port break Alarm				
	Redundancy	Dual Powe	r Inputs			
Devuer	Connectors	7-pin Remo	ovable Terminal Block + DC Jack			
Power	Inputs	12~48VDC (24VDC)				
	Consumption	9 Watts Ma	ах			
	ESD	4000VDC (Ethernet Ports)			
Protection	Surge	2000VDC (Power)			
	Reverse Power	Present				
	Dimensions	56.5 x 110	x 150 mm (D x W x H)			
Mechanical	Enclosure	IP30 Alumi	nium			
	Mounting	DIN Rail an	d Wall Mountable			
	Operation Temperature	Standard	0°C to 60°C / Extend -40°C to 80)°C		
Environment Operation Humidity		5% to 95%RH				
	Storage Temperature	- 40°C to 8	5°C			
	Safety	UL60950, CAN/CSA-C22.2 No.60950				
	Hazardous Location	UL/cUL Class1, Div 2				
Certifications	EMC	FCC Part 15, CISPR (EN55022) Class A, CE				
	Shock IEC60068-2-27					
	Free-fall / Vibration	IEC60068-2	2-32 / IEC60068-2-6			
WARRANTY		5 years				
Note : Please conta	act our sales team for fiber co	nnector types (ST, SC), and vario	ous distance options availability f	or single mode fiber.		

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⊢Managed Redundant

Model		ESW-8062-TX Series	ESW-8062-MM Series	ESW-8062-SS Series		
Product						
Description		Industrial 8 ports 10/100Base- T(X) Ethernet Switch	Industrial 6 ports 10/100Base- T(X) + 2 ports 100Base-SX (Multi-Mode) Ethernet Switch	Industrial 6 ports $10/100Base-T(X) + 2$ ports $100Base-LX$ (Single Mode) Ethernet Switch		
Total ports		8 ports	8 ports	8 ports		
	10/100Base T(X)	8 ports	6 ports	6 ports		
Interface	100Base FX		2 ports	2 ports		
Alarm Contact		1 Configura	able Relay Outputs			
	Multi-mode	_	50 / 125 μm: Standard 2 km			
Cable Length	Single-mode	_	_	9 / 125 μm: Standard 30 km		
	Standards	IEEE802.3, IEEE802.3ad, IEE		p, IEEE802.1Q, IEEE802.1W		
	Redundancy	SUNIX's ELITE-Ring with recovery time less than 10ms, STP and RSTP				
	VLAN	IEEE802.1Q Tagged VLAN and Port based VLAN				
	SNMP	V1 / V2c / V3				
	IGMP Snooping	IGMP V1 /V2 / V3				
Network Control	RMON	RMON Group 1, 2, 3, 9				
& Management	Security	IP Security,	MAC based Security, RADIUS Ser	ver		
	Traffic Control	Rate Limitir	ig, Port Lock, QoS/ToS			
	Configuration	Web brows	er, Telnet, Serial Console, SNMP,	and Windows Utility,		
	Diagnostics	Alarm Relay SNMP Traps	v Output, Alarm LED, E-mail War	ning, Port mirroring,		
	Device Management	Broadcast S	torm Protection and Port break	Alarm		
	Redundancy	Dual Power	Inputs			
Power	Connectors	7-pin Remo	wable Terminal Block + DC Jack			
Tower	Inputs	12~48VDC	: (24VDC)			
	Consumption	9 Watts Ma	IX			
	ESD	4000VDC (I	Ethernet Ports)			
Protection	Surge	2000VDC (I	Power)			
	Reverse Power	Present				
	Dimensions	56.5 x 110	x 150 mm (D x W x H)			
Mechanical	Enclosure	IP30 Alumii	nium			
	Mounting	DIN Rail and	d Wall Mountable			
	Operation Temperature	Standard	0°C to 60°C / Extend -40°C to 80	°C		
Environment	Operation Humidity	5% to 95%RH				
	Storage Temperature	- 40°C to 8	5°C			
	Safety UL609		CAN/CSA-C22.2 No.60950			
	Hazardous Location	UL/cUL Clas	s1, Div 2			
Certifications	EMC	FCC Part 15	, CISPR (EN55022) Class A, CE			
	Shock	IEC60068-2-27 IEC60068-2-32 / IEC60068-2-6				
	Free-fall / Vibration					
WARRANTY		5 years				

Note: Please contact our sales team for fiber connector types (ST, SC), and various distance options availability for single mode fiber.



⊢Lite-Managed Ethernet Switches

Model		ESW-2050	ESW-2060	
product				
Description		Industrial 5 ports 10/100Base-T(X) Lite-Managed Switch	Industrial 6 ports 10/100Base-T(X) Lite-Managed Switch	
1	Total Ports	5 ports	6 ports	
Interface	10/100 RJ45 Ports	5 ports	6 ports	
	Standards	IEEE802.3, IEEE802.3u, IEE	E802.3w, IEEE802.3x, IEEE802.1Q	
Communication	Transmission Speed	up to 100Mbps		
	Transmission Distance	100m		
	Diagnostics	Alarm LED, E-mail Warning, System Log	Alarm Relay Output, Alarm LED, E-mail Warning, System Log	
	Configuration	Web browser, SUNIX Commander Pro (Windows utility)		
Network Control	Redundancy	SUNIX's ELITE Ring [™] with recovery time less than 10ms, STP and RSTP		
	VLAN	Port-based VLAN		
	Security	IP Security, MAC based Security		
	Device Management	None		
Redundancy		Dual Power Inputs (Termina	al Block & DC Jack type)	
Douvor	Connectors	3-pin Removable Terminal Block + DC Jack	7-pin Removable Terminal Block + DC Jack	
Power	Inputs	9~30VDC (24VDC)	12~48VDC (24VDC)	
	Consumption	7.5 Watts Maximum		
	ESD	4000VDC (Ethernet Ports)		
Protection	Surge	2000VDC (Power)		
	Reverse Power	Present		
	Dimensions	25 x 64 x 102 mm (D x W x H)	106 x 52 x 144 mm (D x W x H)	
Mechanical	Enclosure	IP30 Aluminium		
	Mounting	DIN Rail and Wall Mountab	ble	
	Operating Temperature	-40°C to 70°C		
Environment	Operating Humidity	5% to 95%RH		
	Storage Temperature	-40°C to 85°C		
	EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge) Level 3, EN61000-4-3 (CS) Level 3		
Certifications	EMC	FCC Part 15, CISPR (EN550	22) Class A	
	Shock	IEC60068-2-27		
Freefall / Vibration		IEC60068-2-32 / IEC60068-2-6		
WARANTY		5 Years		

Note : ST and SC Type of fiber connectors are available. Please check the availability for fiber transceiver for different long-haul distances

⊢Lite-Managed Ethernet Switches

Model		ESW-2042MM	ESW-2042SS	ESW-2080	
product					
Description		Industrial 4 ports 10/100Base-T(X) + 2 ports 100Base-FX (Multi Mode) Lite-Managed Switch	Industrial 4 ports 10/100Base-T(X) + 2 ports 100Base-FX (Single Mode) Lite-Managed Switch	Industrial 8 ports 10/100Base- T(X) Lite-Managed Switch	
	Total Ports	6 ports	1	8 ports	
Interface	10/100 RJ45 Ports	4 ports	4 ports	8 ports	
	100FX Ports	2 ports (ST/SC)	2 ports (ST/SC)	—	
	Standards	IEEE802	2.3, IEEE802.3u, IEEE802.3w, IEEE8	02.3x, IEEE802.1Q	
Communication	Transmission Speed	up to 1	00Mbps		
Transmission Distance		RJ-45 = 100m; Fiber = 2km	RJ-45 = 100m; Fiber = 30km	100m, Fiber: up to 120km	
	Diagnostics	Alarm Relay Output, Alarm LED, E-mail Warning, System Log			
	Configuration	Web browser, SUNIX Commander Pro (Windows utility)			
	Redundancy	SUNIX's ELite Ring with recovery time less than 10ms, STP and RSTP			
Network Control	VLAN	Port-based VLAN			
	Security	IP Security, MAC based Security			
	Device Management	Broadcast Storm Protec Port break Alarm			
	Redundancy	Dual Po	ower Inputs (Terminal Block & DC Ja	ck type)	
Power	Connectors	7-pin R	emovable Terminal Block + DC Jack		
rower	Inputs	12~48	VDC (24VDC)		
	Consumption	7.5 Wa	tts Maximum		
	ESD	4000V	DC (Ethernet Ports)		
Protection	Surge	2000V	DC (Power)		
	Reverse Power	Present			
	Dimensions	25 x 64 x 102 mm (D x W x H)	106 x 52 x 144 r	nm (D x W x H)	
Mechanical	Enclosure	IP30 Aluminium			
	Mounting	DIN Rai	l and Wall Mountable		
	Operating Temperature	-40°C to 70°C			
Environment	Operating Humidity	5% to 9	95%RH		
	Storage Temperature	-40°C to	o 85°C		
	EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4 (Surge) Level 3, EN61000-4-3 (CS) Level 3			
Certifications	EMC	FCC Par	rt 15, CISPR (EN55022) Class A		
	Shock	IEC60068-2-27 n IEC60068-2-32 / IEC60068-2-6			
	Freefall / Vibration				
WARANTY		5 Years			

Note: ST and SC Type of fiber connectors are available. Please check the availability for fiber transceiver for different long-haul distances

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_Unmanaged Ethernet Switches

Model		ESW-1050 Series	ESW-1041 Series	ESW-1080 Series	ESW-1062 Series	
Product						
Description 1 E		Industrial 5 ports 10/100Base-T(X) Ethernet Switch	Industrial 4 ports 10/100Base-T(X) + 1 port 100Base-FX Ethernet Switch	Industrial 8 ports 10/100Base-T(X) Ethernet Switch	Industrial 6 ports 10/100Base-T(X) + 2 ports 100Base-FX Ethernet Switch	
Total ports		5 ports	5 ports	8 ports	8 ports	
Interface	10/100Base T(X), RJ45 ports	5 ports	4 ports	8 ports	6 ports	
Interface	100Base FX		1 port : Standard SC	_	2 ports : Standard SC	
Alarm Contact		_		1 Configurable	Relay Outputs	
Cable Law with	Multi-mode	_	50 / 125 μm : Standard 2 km	_	50 / 125 μm : Standard 2 km	
cable Length	Single-mode	_	9 / 125 μm : Standard 30 km	_	9 / 125 μm : Standard 30 km	
	Redundancy	Dual Power Inputs				
Power	Connectors	Removable Terminal Block + DC Jack				
rower	Inputs	12~48VDC (24VDC)				
	Consumption	12V / 1A (12W)				
	ESD		4000VDC			
Protection	Surge		2000VDC	2000VDC (Power)		
	Reverse Power		Present			
	Dimensions		30 x 68.5 x	.5 x 105 mm (W x D x H)		
Mechanical	Enclosure	IP30 Aluminium				
	Mounting		DIN Rail ar	and Wall Mountable		
	Operation Temperature		Standard	0° C to 60° C / Extend - 40	D°C to 80°C	
Environment	Operation Humidity		5% to 95%	Ъ́RН		
	Storage Temperature	- 40°C to 85°C				
	Safety		UL60950,	UL60950, CAN/CSA-C22.2 No.60950		
	Hazardous Location		UL/cUL Class1, Div 2			
Certifications	EMC		FCC Part 1	5, CISPR (EN55022) Class	A, CE	
	Shock		IEC60068-2-27			
Free-fall / Vibration		IEC60068-2-32 / IEC60068-2-6				
WARRANTY			5 years			

Note : Please contact our sales team for fiber connector types (ST, SC). and various distance options availability for single mode fiber.