



# IES-2042PA

**Industrial 6-port slim type lite-managed Ethernet switch with 4x10/100Base-T(X) and 2x100Base-FX, SFP socket**

## Features

- > World's fastest Redundant Ethernet Ring: **O-Ring** (recovery time < 10ms over 250 units of connection)
- > **Open-Ring** support the other vendor's ring technology in open architecture
- > **O-Chain** support the multiple redundant ring technology
- > Provide **Fast recovery technology** for Ethernet multi-redundancy
- > Support STP/RSTP standard redundant protocol
- > Supports 4 ports 10/100Base-T(X) and 2 ports 100Base-FX SFP Port
- > SNMP v1/v2c/v3 ,http server, telnet server support
- > Support LLDP protocol
- > Web-based interface,telnet server and Windows utility (**Open-Vision**) configuration
- > Event notification through Syslog, Email, SNMP trap and relay
- > Provide Web / Windows Utility / DIP-Switch function to set Ring Function
- > Rigid IP-30 housing design
- > DIN-Rail and wall mounting enabled



## Introduction

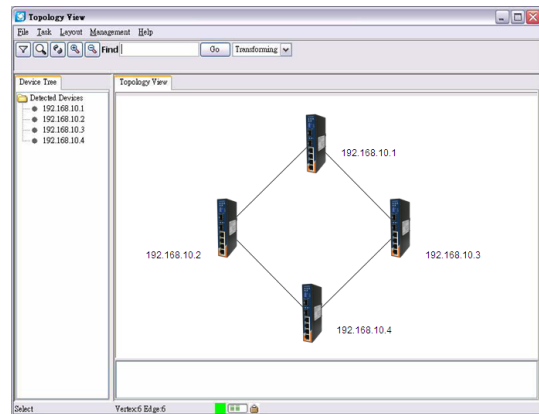
IES-2042PA is a Lite-Managed Redundant Ring Ethernet switch. With very compact size of housing, you can install IES-2042PA easily. In addition, it also supports of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-Chain and STP/RSTP (IEEE802.1w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. IES-2042PA provides the setting ability of Web-GUI and Windows Utility, also support the simple DIP-Switch setting function which offers great flexibility to set up the Ring. With its rigid IP-30 housing design, it can operate under harsh environment. The feature of wide operating temperature range from -40°C to 70°C can satisfy most requirement of operation.

## Practical Operation

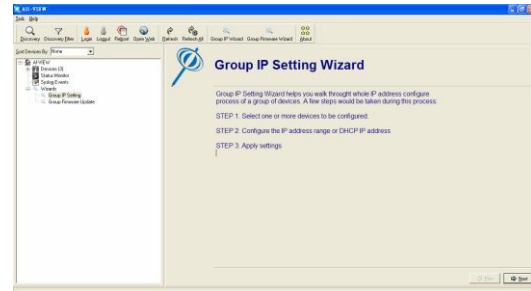
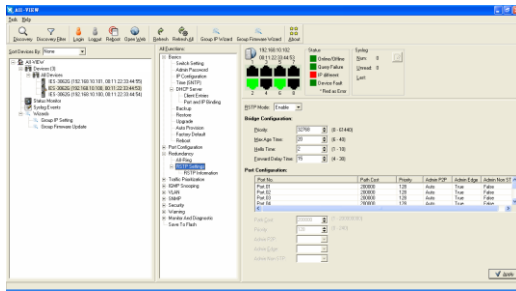
IES-2042PA can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. In addition, O-Ring redundant technology is supported to guarantee a non-stop operation.



Connections of redundancy

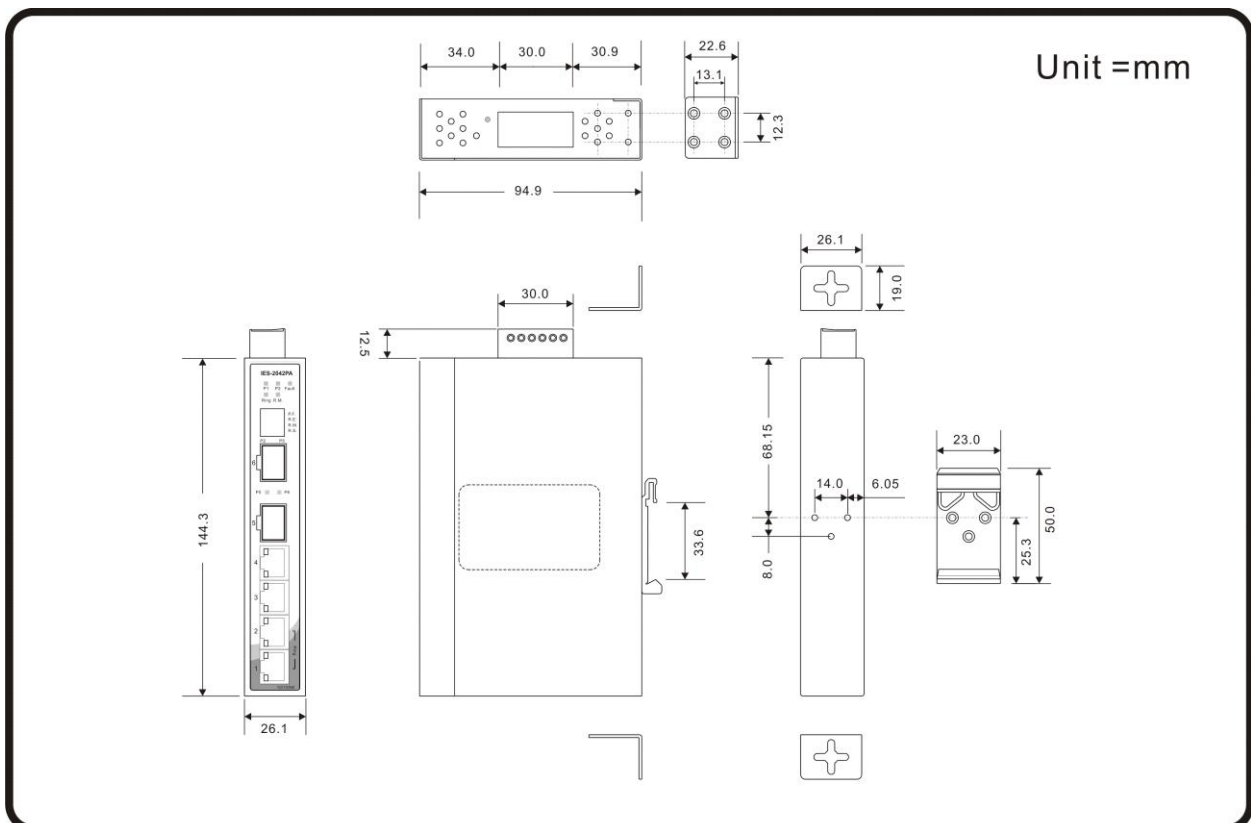


Topology View



Monitoring and Configuration interface

## Dimension



## Specifications

ORing Switch Model	IES-2042PA
<b>Physical Ports</b>	
10/100 Base-T(X) Ports in RJ45 Auto MDI/MDIX	4
100Base-FX SFP Ports	2
<b>Technology</b>	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3x for Flow control IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	1024 MAC addresses
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switching bandwidth: 1.2Gbps VLAN: Port Based
Security Features	Enable/disable ports VLAN to segregate and secure network traffic
Software Features	STP/RSTP (IEEE 802.1D/w) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units DHCP Client Port base VLAN LLDP (Link Layer Discovery Protocol) Port configuration, status, statistics, monitoring, security SNMP v1/v2c/v3 and private MIB support
Network Redundancy	O-Ring Open-Ring O-Chain Fast recovery STP RSTP
<b>DIP-Switch Setting</b>	
P.F.	When power fault enable relay warning system (On : Enable, Off : Disable function)
R.E.	Enable/Disable O-Ring function (On : Enable, Off : Disable)
R.M.	Enable/Disable Ring Master Mode (On : Enable, Off : Disable)
R.S.	O-Ring redundant port select (On : ring port set to port-5 and port-6, Off : ring port set to port-1 and port-2)
<b>LED Indicators</b>	
Power Indicator	Green LED x 2
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Link
100Base-FX SFP Port Indicator	Green for port Link/Act
R.M. Indicator	Green : Indicate system operated in O-Ring Master mode
O-Ring Indicator	Green : Indicate port operated in O-Ring mode
Fault Indicator	Amber : Indicate unexpected event occurred
<b>Fault Contact</b>	
Relay	Relay output to carry capacity of 1A at 24VDC
<b>Power</b>	
Input Power	12~ 48 VDC power inputs on 6-pin terminal block
Power Consumption (Typ.)	7 Watts max
Overload Current Protection	Present
Reverse Polarity Protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-30

Dimension (W x D x H)	26.1 mm (W) x 95 mm(D) x 144.3(H) mm
Weight (g)	395 g
<b>Environmental</b>	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 70°C (-40 to 158°F)
Operating Humidity	5% to 95% Non-condensing
<b>Regulatory approvals</b>	
EMC	CE EMC( EN55024, EN55032), FCC Part 15 B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, Part 15 B class A
EMS	EN 55024 (IEC/EN 61000-4-2(ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11(DIP))
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF	1,411,650 hrs
<b>Warranty</b>	5 years

## Ordering Information

**IES-2AABCA**

Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type
<b>Option</b>	<b>- 04:</b> 4 ports	<b>- 2:</b> 2 port	<b>- P :</b> 100Base-FX SFP port
Available Model	Model Name	Description	
	<b>IES-2042PA</b>	Industrial 6-port slim type lite-managed Ethernet switch with 4x10/100Base-T(X) and 2x100Base-FX, SFP socket	

## Packing List

- IES-2042PA x 1
- ORing Tool CD x 1
- Quick Installation Guide x 1
- DIN-Rail Kit x 1
- Wall-mount Kit x 1

## Optional Accessories

- **Open-Vision M500 : Powerful Network Management Windows Utility Suit, 500 IP devices**
- **SFP100 series : 100Mbps SFP optical transceiver**
- **DR/SDR/DRP Series DIN-Rail power supply**

