

# IES-2050A



➤ **Industrial 5-port slim type lite-managed Ethernet switch with 5x10/100Base-T(X)**

## Features

- Fastest Redundant Ethernet Ring : **O-Ring** (recovery time < 10ms over 250 units of connection)
- **Open-Ring** supports the other vendor's ring technology in open architecture
- **O-Chain** support the multiple redundant ring technology
- Supports 5 ports 10/100Base-T(X)
- SNMP v1/v2c/v3 support for secured network management
- Web-based interface, telnet server, and Windows utility (Open-Vision) configuration
- Event notification through Syslog, Email, SNMP trap and relay.
- Provides Web / Windows Utility / DIP-Switch function to set Ring
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled
- Supports LLDP Protocol

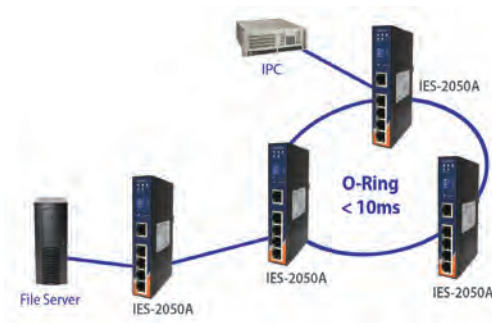


## Introduction

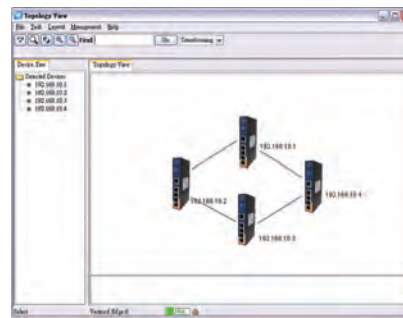
IES-2050A is a lite-managed Ethernet switch. With very compact size of housing, you can install IES-2050A easily. In addition, it also supports of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection) and Open-Ring, O-Chain and STP/RSTP(IEEE802.1w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. IES-2050A provide the setting ability of Web-GUI and Windows Utility, also support the simple DIP-Switch setting function which offer great flexibility to set up the Ring. IES-2050A is with rigid IP-30 housing design and can operate under harsh environment. The feature of wide operating temperature range from -40 to 70°C can satisfy most requirement of operation.

## Open-Vision

IES-2050A 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



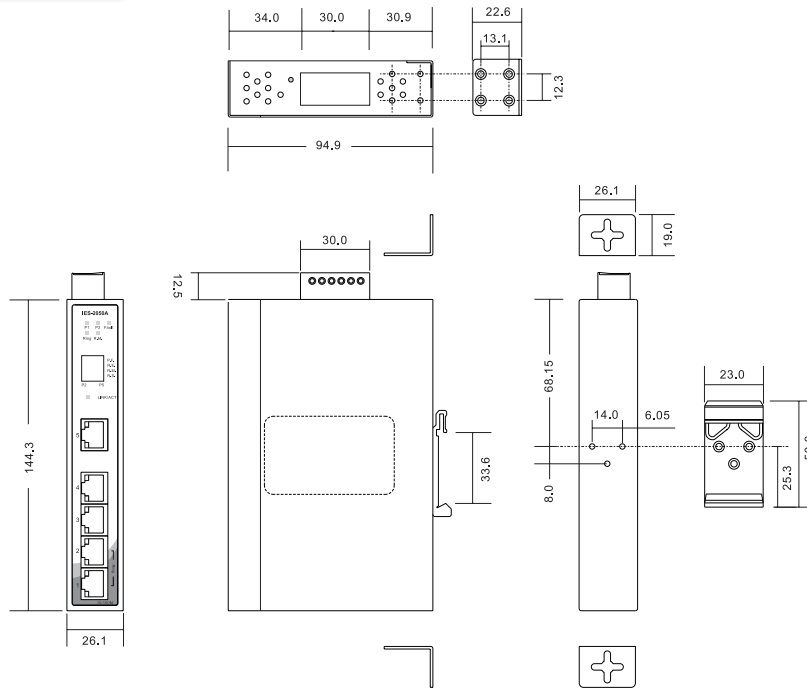
Topology View



Monitoring and Configuration interface



## Dimensions



(Unit=mm)

## Specifications

ORing Switch Model	IES-2050A		
<b>Physical Ports</b>			
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	5		
<b>Technology</b>			
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX 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 : 1.0Gbps 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 Fast recovery	Open-Ring STP	O-Chain RSTP
<b>DIP Switch Settings</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-1 and port-5, Off : ring port set to port-1 and port-2)		

LED Indicators	
Power Indicator	Green LED x 2
R.M. Indicator	Green : Indicates that the system is operating in O-Ring Master mode
O-Ring Indicator	Green : Indicates port operated in O-Ring mode
Fault Indicator	Amber : Indicates unexpected event occurred
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Input Power	Dual 12~ 48VDC power input on 6-pin terminal block
Power Consumption (Typ.)	4 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristics	
Enclosure	IP-30
Dimensions (W x D x H)	26.1 mm (W) x 95 mm(D) x 144.3 mm(H)
Weight (g)	395 g
Environmental	
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
Regulatory Approvals	
EMI	FCC Part 15, CISPR (EN55022) class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C)	322,412
Warranty	5 years

## Ordering Information

IES-2 **AA** **BA**

Code efnition	10/100Base-T(X) Port Number	Additional Port Number
<b>Option</b>	- <b>5</b> : 5 ports	- <b>0</b> : 0 port

Available Model	Model Name	Description
	IES-2050A	Industrial 5-port slim type lite-managed Ethernet switch with 5x10/100Base-T(X)

### Packing List

- IES-2050A
- DIN-Rail Kit
- Wall-mount Kit
- ORing Tool CD
- Quick Installation Guide

### Optional Accessories (Can be purchased separately)

- Open-Vision M500, Powerful Network Management Windows Utility Suite, 500 IP devices
- DR-45 series, 45W DIN-Rail power supply
- DR-75 series, 75W DIN-Rail power supply
- DR-120 series, 120W DIN-Rail power supply
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply