

IES-2050

>> Industrial 5-port Lite-Managed Ethernet Switch

- Supports **O-Ring** (recovery time < 10ms over 250 units of connection), RSTP/STP (IEEE 802.1w/D) for Ethernet Redundancy
- Multiple notification for warning of unexpected events
- Web-based and Windows utility (Open-Vision) configuration
- Supports 5 ports 10/100Base-T(X)
- Rigid IP-30 housing design



> Features

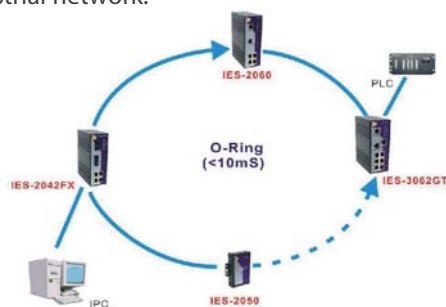
- World's fastest Redundant Ethernet Ring: **O-Ring** (recovery time < 10ms over 250 units of connection)
- Multiple Redundant Ethernet technology RSTP/STP, **O-Ring** supports to protect your industrial network
- SNMP v1 support for secured network management
- Configuration by Web-based and Windows utility (**Open-Vision**)
- Event notification through Syslog, Email, and SNMP trap
- Very wide operating temperature range from -40°C to 70°C
- Rigid IP-30 housing design
- DIN-Rail and panel mounting enabled

> Introduction

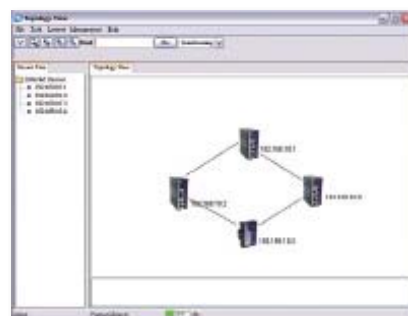
IES-2050 is a lite-managed Redundant Ring Ethernet switch with 5x10/100TX ports. With complete support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection) and RSTP/STP (IEEE 802.1w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. IES-2050 can be managed centralized and convenient by a powerful windows utility — Open-Vision. In addition, the wide operating temperature range from -40°C to 70°C can satisfy most of operating environment. Therefore, IES-2050 is one of the most reliable choices for industrial networking application.

> Open-Vision

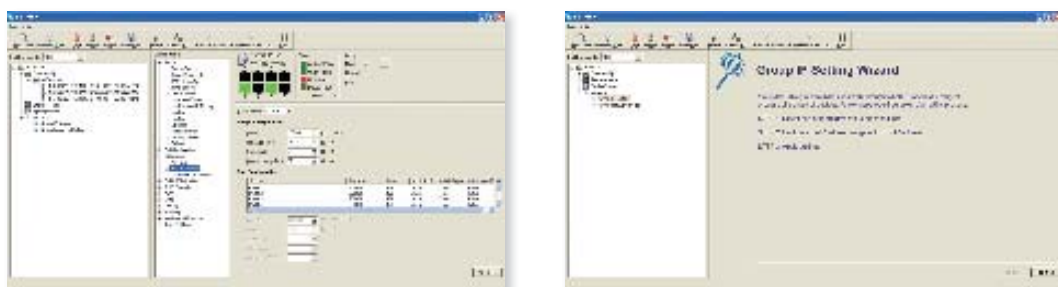
ORing's switches are intelligent switches. Being different from other traditional redundant switches, ORing provides a set of Windows utility (Open-Vision) for users to manage and monitor all of industrial Ethernet switches on the industrial network.



Network connection

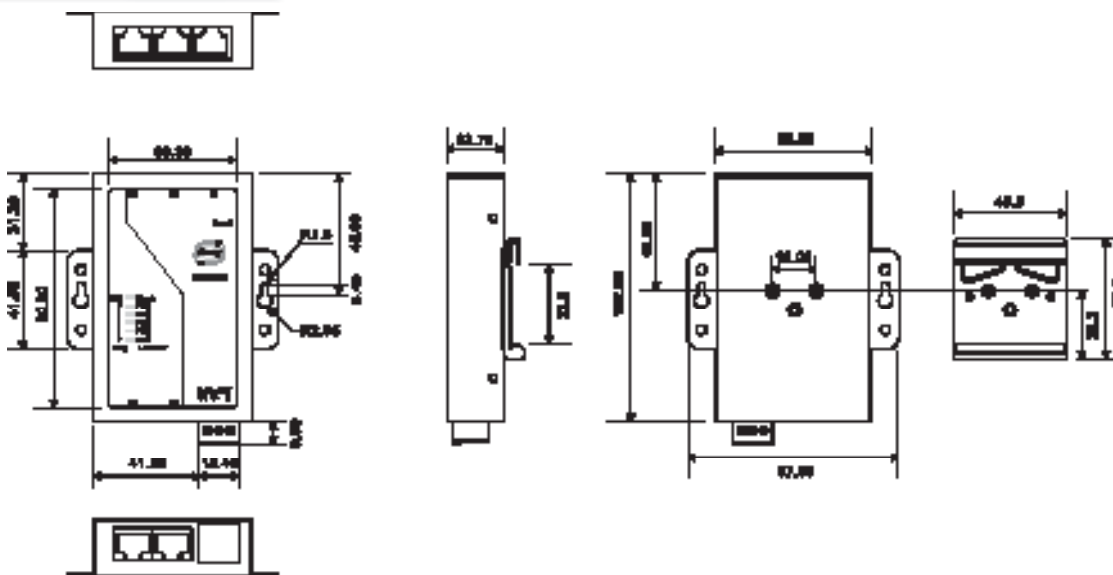


Topology View



Monitoring and Configuration interface

> Dimension



(Unit=mm)

> Specifications

ORing Switch Model	IES-2050
Physical Ports	
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	5
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-T(X) 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	2048 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 Port configuration, status, statistics, monitoring, security

Network Redundancy	O-Ring STP RSTP
LED Indicators	
Power / Ready Indicator	Green : Ready LED x 1
R.M. Indicator	Amber : Indicate system operated in O-Ring Master mode
O-Ring Indicator	Amber : Indicate port operated in O-Ring mode
10/100TX RJ45 Port Indicator	Green for port Link/Act.
Power	
Input Power	9 ~ 30 VDC voltage power input
Power Consumption (Typ.)	3W
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	87.6(W) x 23.75(D) x 102.2(H) mm (3.45x0.94x4.02 inch)
Weight (g)	308 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
Warranty	5 years

> Ordering Information

IES-2 **AA** **B**

Code efnition	10/100TX Port Number	Additional Port Number
Option	- 05: 5 ports	- 0: 0 port

Available Model	Model Name	Description
	IES-2050	Industrial 5-port Lite-managed Ethernet Switch with 5x10/100Base-T(X)