IES-3080/3062 Series

IES-3080   IES-3062FX

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Industrial Ethernet Switch

➤ *Industrial 8-port managed Ethernet switch*

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** allow multiple redundant network rings

- Support standard IEC 62439-2 **MRP** (Media Redundancy Protocol) function

- STP/RSTP:2004/MSTP supported

- Support IPV6 new internet protocol version

- Support **PTP Client** (Precision Time Protocol) clock synchronization

- Provided HTTPS/SSH protocol to enhance network security

- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic

- Port Trunking for easy of bandwidth management

- SNMP v1/v2c/v3 support for secured network management

- RMON for traffic monitoring

- Support LLDP protocol

- Support TACACS+ and 802.1x User Authentication for security

- Port lock to prevent access from unauthorized MAC address

- Event notification through Syslog, Email, SNMP trap, and Relay Output

- Windows utility **(Open-Vision)** support centralized management and configurable by Web-based ,Telnet, Console, CLI

- Complete combination of 10/100Base-T(X), 100Base-FX, 1000Base-T, 1000Base-SX, and 1000Base-LX ports

- Rigid IP-30 housing design

- DIN-Rail and wall mounting enabled

IPv6 READY

O-Ring

Redundant PWR

-40~70°C Temperature

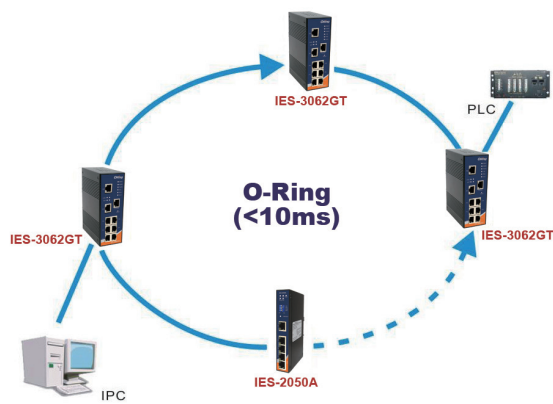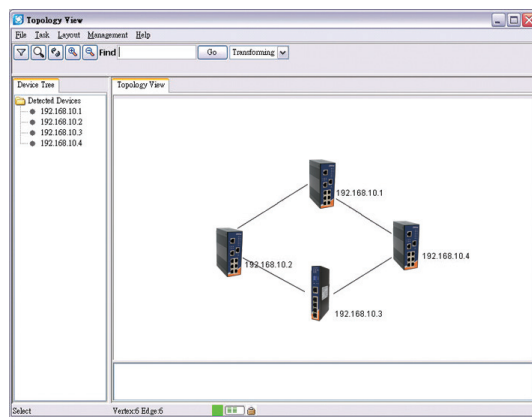RoHS Lead Free   cULus E331061   CE   FC

Introduction

IES-3080 / IES-3062 series are managed Redundant Ring Ethernet switches with 6x10/100Base-T(X) and 2x10/100Base-T(X), 100Base-FX, 1000Base-T, 1000Base-SX or 1000Base-LX ports. With complete support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-RSTP and MSTP/RSTP:2004/STP (IEEE 802.1s/w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. Another Open-Ring technology is also supported which can applied for other vendor's proprietary ring. IES-3080 / IES-3062 series 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, the switch is one of the most reliable choice for highly-managed Fiber Ethernet application.
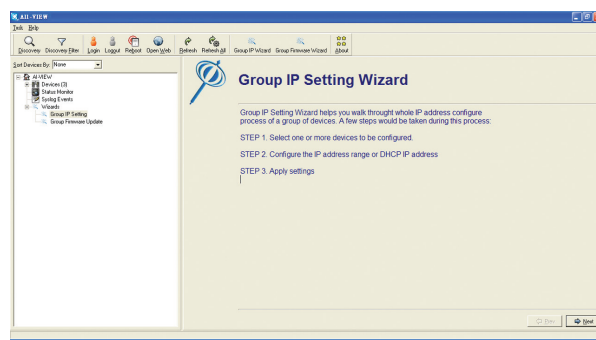
Open-Vision

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

Network connection

Topology View
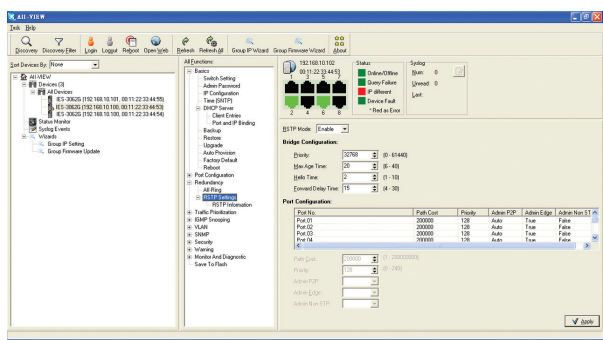
Monitoring and Configuration interface

Dimensions

(Unit=mm)

Industrial
Media Converter

Industrial
Device Server

Industrial Wireless
Access Point

Industrial Cellular
VPN Router

Industrial
M2M Gateway

Accessories

Network
Management Software

Specifications

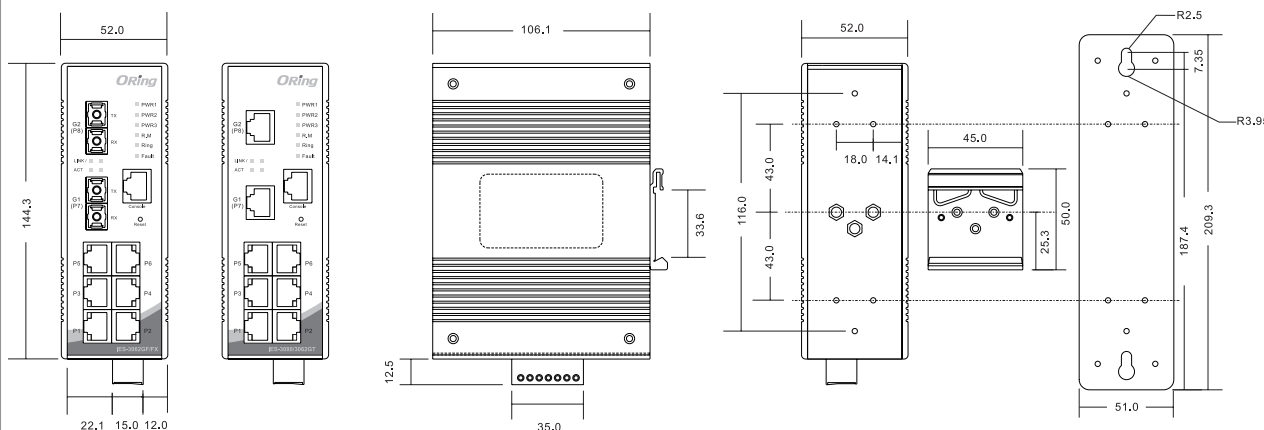| ORing Switch Model	IES-3080	IES-3062GT	IES-3062FX-MM	IES-3062FX-SS	IES-3062GF-MM	IES-3062GF-SS
Physical Ports						
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	8	6	6	6	6	6
10/100/1000Base-T(X) Ports in RJ45 Auto MDI/MDIX	-	2	-	-	-	-
Fiber Ports Specifications — Fiber Ports Number	-	-	2	2	2	2
Fiber Ports Standard	-	-	100Base-FX	100Base-FX	1000Base-SX	1000Base-LX
Fiber Mode	-	-	Multi-mode	Single-mode	Multi-mode	Single-mode
Fiber Diameter (μm)	-	-	62.5/125 μm 50/125 μm	9/125 μm	62.5/125 μm 50/125 μm	9/125 μm
Fiber Optical Connector	-	-	SC	SC	SC	SC
Typical Distance (km)	-	-	2 km	30 km	0.55 km	10 km
Wavelength (nm)	-	-	1310 nm	1310 nm	850 nm	1310 nm
Max. Output Optical Power (dBm)	-	-	-14 dBm	-8 dBm	-4 dBm	-3 dBm
Min. Output Optical Power (dBm)	-	-	-23.5 dBm	-15 dBm	-9.5 dBm	-9.5 dBm
Max. Input Optical Power (Saturation)	-	-	0 dBm	0 dBm	0 dBm	-3 dBm
Min. Input Optical Power (Sensitivity)	-	-	-31 dBm	-34 dBm	-18 dBm	-20 dBm
Link Budget (dB)	-	-	7.5 dB	19 dB	8.5 dB	10.5 dB
Technology						
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.3x for Flow control IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1D-2004 for RSTP:2004 (Rapid Spanning Tree Protocol 2004) IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication					
MAC Table	8192 MAC addresses					
Priority Queues	4					
Processing	Store-and-Forward					
Switch Properties	Switching latency : 7 μs Switching bandwidth : 5.2Gbps Max. Number of Available VLANs : 4096 IGMP multicast groups : 1024 Port rate limiting : User Define					
Security Feature	Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1q) to segregate and secure network traffic Supports Q-in-Q VLAN for performance & security to expand the VLAN space Radius centralized password management SNMPV1/V2c/V3 encrypted authentication and access security Https / SSH enhance network security					

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Industrial Ethernet Switch

Software Features	STP/RSTP:2004/MSTP (IEEE 802.1D/w/s) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging and GVRP supported IGMP Snooping for multicast filtering Port configuration, status, statistics, monitoring, security SNTP for synchronizing of clocks over network Support **PTP Client** (Precision Time Protocol) clock synchronization DHCP Server / Client support Port Trunk support MVR (Multicast VLAN Registration) support Modbus TCP
Network Redundancy	O-Ring Open-Ring O-Chain STP RSTP:2004 MSTP MRP
Warning / Monitoring System	Relay output for fault event alarming Syslog server / client to record and view events Include SMTP for event warning notification via email Event selection support
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. Baud rate setting: 9600bps, 8, N, 1

LED Indicators	
Power Indicator	Green : Power LED x 3
R.M. Indicator	Green : Indicates that the system is operating in O-Ring Master mode
O-Ring Indicator	Green : Indicates that the system is operating in O-Ring mode
Fault Indicator	Amber : Indicates unexpected events occurred
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision
10/100/1000Base-T(X) / Fiber Port Indicator	Green for port Link/Act. Amber for 100Mbps indicator

Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC

Power						
Redundant Input Power	Triple DC inputs. 12~48VDC on 7-pin terminal block, 12~45VDC on power jack					
Power Consumption (Typ.)	5 Watts	8 Watts	9 Watts	9 Watts	7 Watts	7 Watts
Overload Current Protection	Present					
Reverse Polarity Protection	Present on terminal block					

Physical Characteristics						
Enclosure	IP-30					
Dimensions (W x D x H)	52(W)x106.1(D)x144.3(H) mm (2.05x4.18x5.68 inch.)					
Weight (g)	710 g	722 g	735 g	735 g	740 g	740 g

Environmental	
Storage Temperature	-40 to 85℃ (-40 to 185°F)
Operating Temperature	-40 to 70℃ (-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, UL508(E331061)					
MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25℃)	324,409	287,493	280,176	280,176	290,610	290,610
Warranty	5 years					

Industrial Ethernet Switch

Industrial Media Converter

Industrial Device Server

Industrial Wireless Access Point

Industrial Cellular VPN Router

Industrial M2M Gateway

Accessories

Network Management Software

ORing Designed for Rugged Excellence

Ordering Information

IES-3 AA B CC - DD - EE

Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type	Fiber Optical Mode	Fiber Optical Connector
Option	**- 08:** 8 ports **- 06:** 6 ports	**- 0:** 0 port **- 2:** 2 ports	**- GT:** 10/100/1000Base-T(X) **- FX:** 100Base-FX **- GF:** 1000Base-X	**- MM:** Multi-mode **- SS:** Single-mode	**- SC:** SC connector

	Model Name	Description
Available Model	IES-3080	Industrial 8-port managed Ethernet switch with 8x10/100Base-T(X)
	IES-3062GT	Industrial 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x10/100/1000Base-T(X)
	IES-3062FX-MM-SC	Industrial 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2km/1310nm, SC connector
	IES-3062FX-SS-SC	Industrial 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, single-mode, 30km/1310nm, SC connector
	IES-3062GF-MM-SC	Industrial 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-SX, multi-mode, 550m/850nm, SC connector
	IES-3062GF-SS-SC	Industrial 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-LX, single-mode, 10km/1310nm, SC connector

Packing List

- IES-3080 / 3062 series
- DIN-Rail Kit
- Wall-mount Kit
- Console Cable
- 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
- PAA-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, US plug
- PAE-121000, 12VDC/1000mA 12W Power Adapter with universal 100 to 240VAC input, EU plug
- SDR-240-48, 240W DIN-Rail power supply
- SDR-480-48, 480W DIN-Rail power supply

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