IES-A3080/IES-A3062 Series

IES-A3080 IES-A3062 Series

Industrial C1D2/ATEX 8-port managed Ethernet switch

Features

- C1D2 and ATEX compliant for harsh industrial environments application
- 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** allow multiple redundant network rings
- Support standard IEC 62439-2 MRP*NOTE (Media Redundancy Protocol) function
- STP/RSTP:2004/MSTP supported
- Supports Auto Negotiation Speed
- Support IPV6 new internet protocol version
- Support **PTP Client** (Precision Time Protocol) clock synchronization
- Provided HTTPS/SSH protocol to enhance network security
- Support Modbus/TCP protocol
- 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 and SNMP trap
- Windows utility (Open-Vision) support centralized management and configurable by Web-based ,Telnet, Console(CLI)
- Completely 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

R6 READY | O-Ring | Redundant PWR | -40~70°C Temperature

Ex | RoHS Lead Free | cULus E331061 | CE | FC

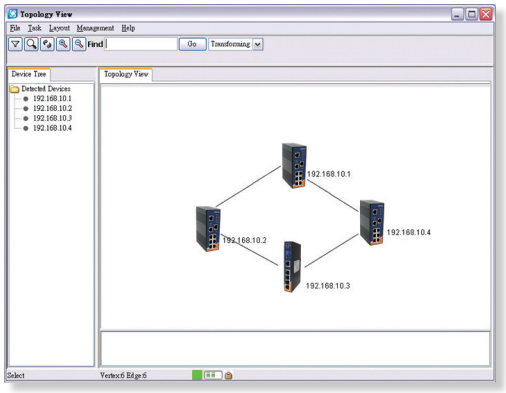
Introduction

IES-A3080 / IES-A3062 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 which is specifically designed for the C1D2/ATEX certified with hazardous locations requirement. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-Chain, MRP*NOTE 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. O-Chain is the revolutionary network redundancy technology that provides the add-on network redundancy topology for any backbone network, O-Chain allows multiple redundant network rings of different redundancy protocols to join and function together as a larger and more robust compound network topology. O-Chain providing ease-of-use while maximizing fault-recovery swiftness, flexibility, compatibility, and cost-effectiveness in one set of network redundancy topology. IES-A3080 / IES-A3062 series can be managed centralized and convenient by a powerful windows utility — Open-Vision. In addition, the wide operating temperature range from -40 to 70°C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choice for highly-managed Fiber Ethernet in hazardous location application.

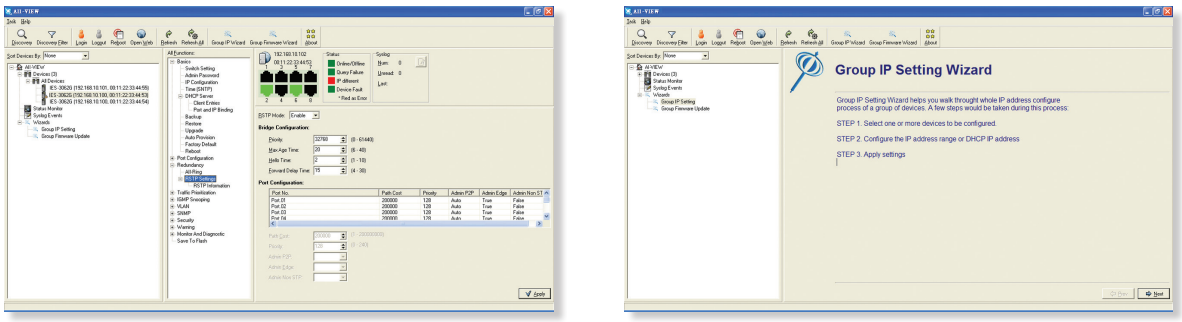
***NOTE: This function is available by request only**

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.

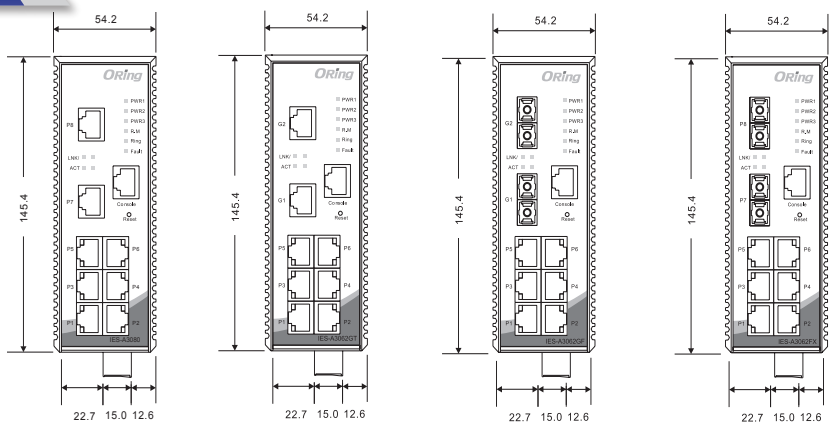


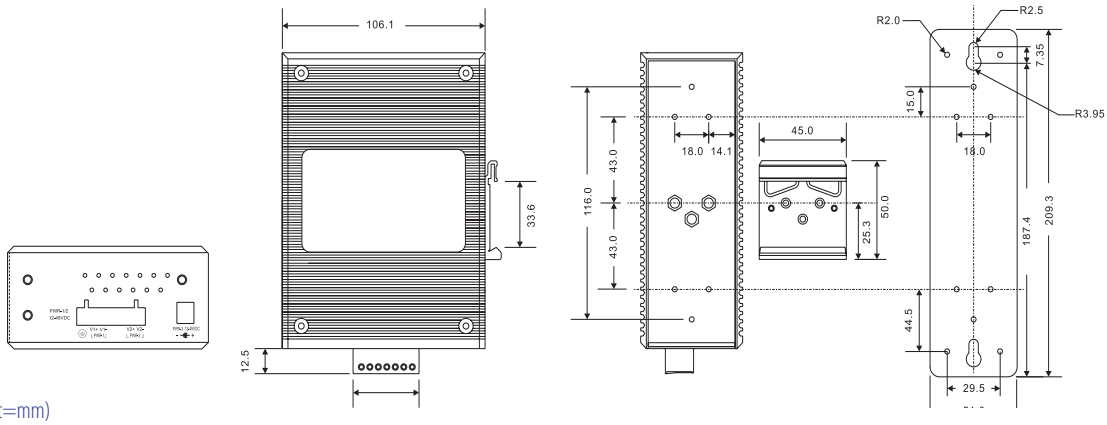
Topology View



Monitoring and Configuration interface

Dimensions





(Unit=mm)

Specifications

ORing Switch Model		IES-A3080	IES-A3062GT	IES-A3062FX-MM	IES-A3062FX-SS	IES-A3062GF-MM	IES-A3062GF-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					
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 MRP*NOTE STP / RSTP:2004 / MSTP					
Warning / Monitoring System	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 Link					
Power						
Redundant Input Power	Triple DC inputs : Dual 12~48VDC on 7-pin terminal block One 12~48VDC on power jack (power jack cannot use in hazardous location application)					
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°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, UL508 (E331061), UL/cUL Class 1 Division 2 Group A/B/C/D, ATEX Class 1 Zone 2					
Warranty	5 years					

***NOTE: This function is available by request only**

Ordering Information

IES-A3 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-A3080	Industrial C1D2/ATEX 8-port managed Ethernet switch with 8x10/100Base-T(X)
	IES-A3062GT	Industrial C1D2/ATEX 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x10/100/1000Base-T(X)
	IES-A3062FX-MM-SC	Industrial C1D2/ATEX 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, multi-mode, 2Km/1310nm, SC connector
	IES-A3062FX-SS-SC	Industrial C1D2/ATEX 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x100Base-FX, single-mode, 30Km/1310nm, SC connector
	IES-A3062GF-MM-SC	Industrial C1D2/ATEX 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-SX, multi-mode, 550m/850nm, SC connector
	IES-A3062GF-SS-SC	Industrial C1D2/ATEX 8-port managed Ethernet switch with 6x10/100Base-T(X) and 2x1000Base-LX, single-mode, 10Km/1310nm, SC connector

Packing List

- IES-A3080 / A3062 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