

# IUS-3080/3062 Series

Industrial 8-port Managed  $\mu$ -Ring Ethernet Switch

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## Highlights

- World's fastest Redundant Ethernet Ring:  $\mu$ -Ring (Recovery time < 1mS over 500 units of connection)
- Supports **O-Ring**, **Open-Ring**, **O-RSTP**, RSTP/STP (IEEE 802.1w/D) for Ethernet Redundancy
- Supports SNMP v1/v2c/v3, QoS, IGMP, RMON & Port based/ 802.1Q VLAN Network Management
- Multiple notification for warning of excepted event
- Web-based, Telnet, Console, CLI, and Windows utility (**Open-Vision**) configuration
- Complete selection to Support 100TX, 1000 Base-T, 100FX, 1000SX, 1000LX ports
- Triple Redundant DC power inputs



## Features

- World's fastest Redundant Ethernet Ring:  $\mu$ -Ring (Recovery time < 1mS over 500 units of connection)
- **Open-Ring** support the other vendor's ring technology in open architecture
- **O-RSTP** support applications with complex topology
- RSTP/STP(IEEE 802.1w/D)
- IGMP snooping for filtering multicast traffic
- Port Trunking for easy of bandwidth management
- SNMP v1/v2c/v3 support for secured network management
- RMON for traffic monitoring
- Event notification through Syslog, Email, SNMP trap, and Relay Output
- Port lock to prevent access from unauthorized MAC address
- Windows utility (**Open-Vision**) support centralied management and configurable by Web-based ,Telnet, Console, CLI
- Triple redundant DC power inputs of terminal block and power jack
- Complete combination of 10/100 Base-T(X), 100Base-FX, 1000Base-T, 1000Base-SX, and 1000Base-LX ports
- Very wide operating temperature range from -40°C to 70°C
- Rigid IP-30 housing design
- DIN-Rail and panel mounting enabled

## Introduction

IUS-3080/3062 series are managed Redundant Ring Ethernet switches with 6x10/100Base-T(X) & 2x100Base-FX, 1000Base-T, 1000Base-SX or 1000Base-LX ports. With its most advanced  $\mu$ -Ring technology, IUS-3080/3062 series can protect your mission-critical applications from network interruptions or temporary malfunctions with its maximum 1ms ultra fast recovery  $\mu$ -Ring technology.  $\mu$ -Ring is a ASIC based redundant ring that almost reach zero packet loss while networking is failure. It guarantees the recovery time less than 1ms even in gigabit Ethernet connection. Another innovative Open-Ring technology is also supported which can be applied for other vendor's proprietary ring technology. In addition, IUS-3080/3062 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 IUS-3080/3062 series are the most reliable choice for highly-managed and Fiber Ethernet application.

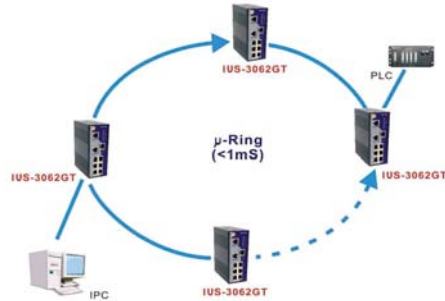


$\mu$ -Ring ASIC

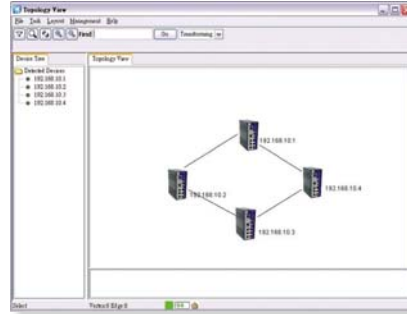
Industrial Ethernet Switches

## Open-Vision

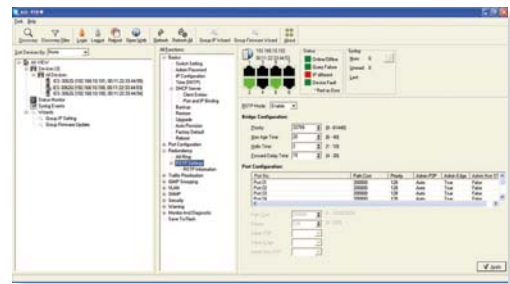
ORing's switches are intelligent switches. Different from other traditional redundant switches, ORing provide a set of Windows utility (Open-Vision) for user to manage and monitor all of industrial Ethernet switches on the industrial network.



Network connection



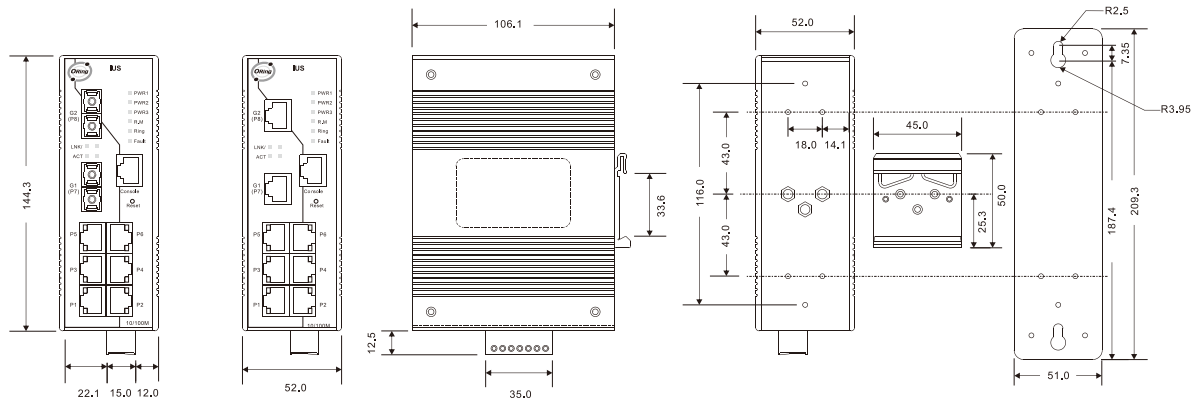
Topology View



Monitoring and Configuration interface

## Dimension

(Unit=mm)



## Specifications

ORing Switch Model	IUS-3080	IUS-3062GT	IUS-3062FX-MM	IUS-3062FX-SS	IUS-3062GF-MM	IUS-3062GF-SS
<b>Physical Ports</b>						
10/100Base-T(X) Ports in RJ45 Auto MDI/MDIX	8	6	6	6	6	6
1000Base-T Ports in RJ45 Auto MDI/MDIX		2				
100Base-FX Multimode ports (2KM, 1310nm, SC connector)			2			
100Base-FX Singlemode ports (30KM, 1550nm, SC connector)				2		
1000Base-SX Multimode ports(550M, 850nm, SC connector)					2	
1000Base-LX Singlemode ports (10KM, 1310nm, SC connector)						2
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. 9600bps, 8, N, 1					
<b>Technology</b>						
Ethernet Standards	IEEE 802.3 for 10Base-T, IEEE 802.3u for 100Base-T(X) and 100Base-FX, IEEE 802.3z for 1000Base-X IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1D for STP (Spanning Tree Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1X for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)					
MAC Table	8192 MAC addresses					
Priority Queues	4					
Processing	Store-and-Forward					
Switch Properties	Switching latency: 7 us Switching bandwidth: 5.6Gbps 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 Radius centralized password management SNMPv3 encrypted authentication and access security					
Software Features	STP/RSTP (IEEE 802.1D/w) 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					
Network Redundancy	μ-Ring O-Ring Open-Ring O-RSTP STP RSTP					

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Industrial Ethernet Switches

LED indicators						
Power indicator	Green : Power LED x 3					
R.M. indicator	Green : Flashing to indicate system operated in $\mu$ -Ring Master mode					
$\mu$ -Ring indicator	Green : Indicate system operated in $\mu$ -Ring mode					
Fault indicator	Yellow : Indicate excepted event occurred					
10/100TX RJ45 port indicator	Green for port Link/Act. Yellow for Duplex/Collision					
1000 Base-T / Fiber port indicator	Green for port Link/Act. Yellow for Link					
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.)	5W	8W	9W	9W	7W	7W
Overload current protection	Present					
Reverse polarity protection	Present on terminal block					
Physical Characteristic						
Enclosure	IP-30					
Dimension (W x D x H)	52(W)x106(D)x144(H) mm (2.05x4.17x5.67 inch.)					
Weight (g)	714 g	726 g	739 g	739 g	744 g	744 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

IUS-3 **AA** **B** **CC** - **DD** - **EE**

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

	Model Name	Description
Available Model	IUS-3080	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 8x10/100TX
	IUS-3062GT	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 6x10/100TX & 2x1000Base-T
	IUS-3062FX-MM-SC	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 6x10/100TX & 2x100FX (Multi-mode)
	IUS-3062FX-SS-SC	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 6x10/100TX & 2x100FX (Single-mode)
	IUS-3062GF-MM-SC	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 6x10/100TX & 2x1000SX (Multi-mode)
	IUS-3062GF-SS-SC	Industrial 8-port Managed $\mu$ -Ring Ethernet Switch with 6x10/100TX & 2x1000LX (Single-mode)

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