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Industrial Ethernet Switch

DES-3073GC-P

> ❯ *Industrial 10-port desktop type managed Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket, power supply included*

Features

- 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** (Media Redundancy Protocol) function
- STP/RSTP/MSTP supported
- Support **PTP Client** (Precision Time Protocol) clock synchronization
- Support Modbus/TCP protocol
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Support QoS (IEEE 802.1p and TOS/DiffServ) to increase determinism
- Port Trunking for easy of bandwidth management
- SNMP v1/v2c/v3 support for secured network management
- RMON for traffic monitoring
- Supports **DDM** (Digital Diagnostic Monitoring) function
- Support LLDP protocol
- 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)
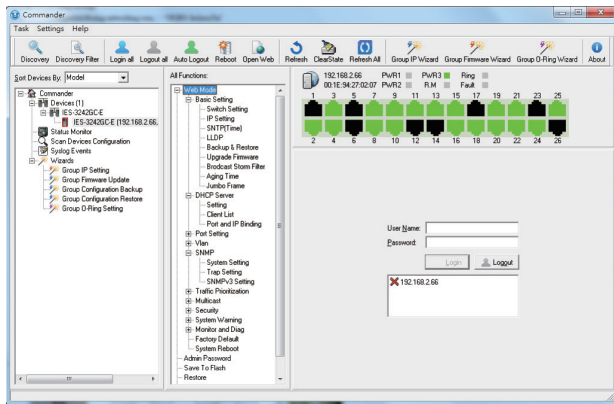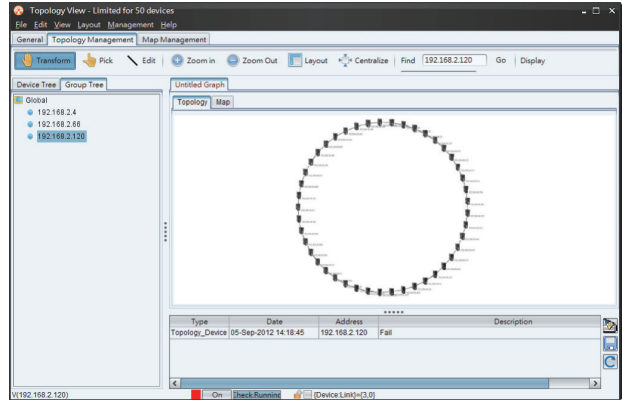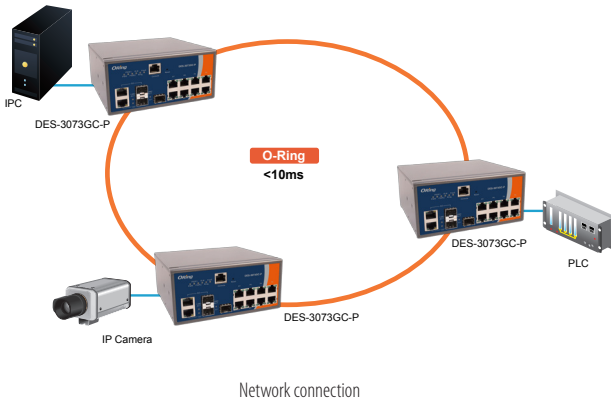- Rigid IP-30 housing design

Introduction

   DES-3073GC-P is desktop type managed Redundant Ring Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 10ms over 250 units of connection), Open-Ring, O-Chain and MSTP/RSTP/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. All function of DES-3073GC-P can be managed centralized and convenient by a powerful windows utility — Open-Vision. In addition, the wide operating temperature range from -40 to 70^{0}C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choices for highly-managed Fiber Ethernet application.
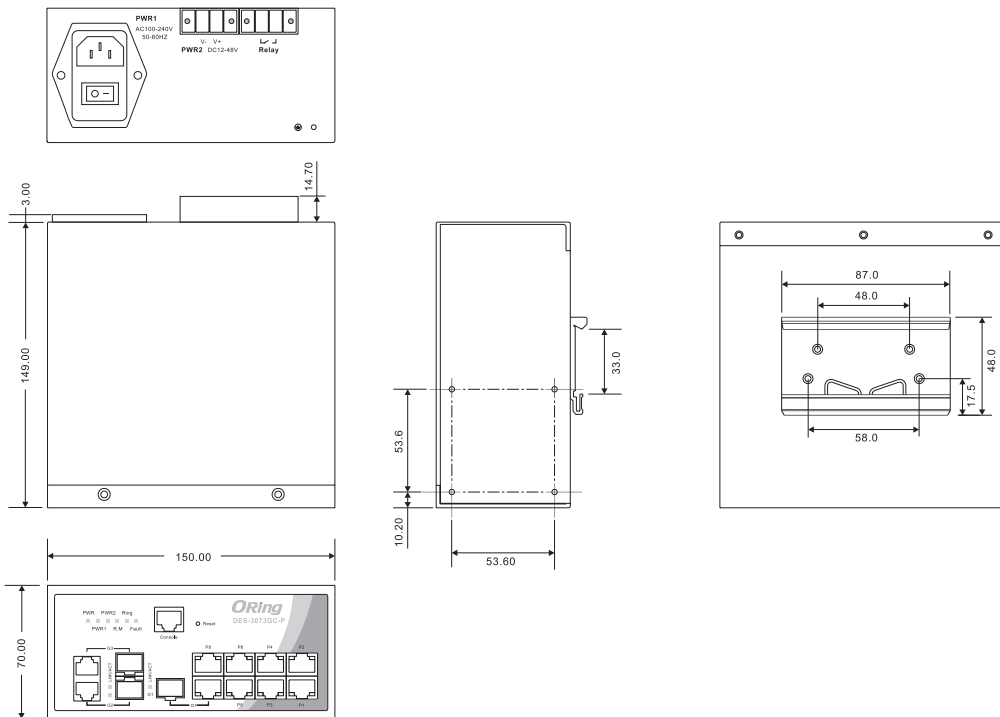
Open-Vision

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
Ethernet Switch

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	DES-3073GC-P
Physical Ports	
10/100 Base-T(X) Port in RJ45 Auto MDI/MDIX	7
Gigabit combo Ports with 10/100/1000Base-T(X) and 100/1000Base-X SFP Port	3
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 802.3x 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 802.1s for MSTP (Multiple 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: 7.4Gbps Max. Number of Available VLANs: 4096 IGMP multicast groups: 1024 Port rate limiting: User Define
Security Features	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 SNMP v1/v2c/v3 encrypted authentication and access security
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (O-Ring) with recovery time less than 10ms over 250 units Modbus/TCP supported QoS supported 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 STP/RSTP/MSTP
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 DB9 connector with console cable. 9600bps, 8, N, 1
LED Indicators	
Power Indicator	Green : Power LED x 3
R.M. Indicator	Green : Indicate system operated in O-Ring master mode
O-Ring Indicator	Green : Indicate system operated in O-Ring mode

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Accessories

Network
Management Software

Fault Indicator	Amber : Indicate unexpected event occurred
10/100Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/Collision
10/100/1000Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for 100Mbps indicator
100/1000Base-X SFP Port Indicator	Green for port Link/Act.
Fault contact	
Relay	Relay output to carry capacity of 1A at 24VDC
Power	
Redundant Input Power	one 100~240VAC with power cord, one 12 ~ 48VDC power inputs at 2-pin terminal block
Power Consumption (Typ.)	12 Watts
Overload Current Protection	Present
Reverse Polarity Protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	150(W)x149(D)x70(H) mm (5.9 x 5.9 x 2.76 inch)
Weight (g)	1950 g
Environmental	
Storage Temperature	-40 to 85℃ (-40 to 185℉)
Operating Temperature	-40 to 70℃ (-40 to 158℉)
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
Warranty	5 years

Ordering Information

DES-3 AA B CC **-P**

Code Definition	10/100Base-T(X) Port Number	Additional Port Number	Additional Port Type
Option	**- 07 :** 7 ports	**- 3 :** 3 ports	**- GC :** Gigabit combo port

	Model Name	Description
Available Model	DES-3073GC-P_US	Industrial 10-port desktop managed Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket, power supply included, US power cord
	DES-3073GC-P_EU	Industrial 10-port desktop managed Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket, power supply included, EU power cord
	DES-3073GC-P_UK	Industrial 10-port desktop managed Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket, power supply included, UK power cord
	DES-3073GC-P_JP	Industrial 10-port desktop managed Ethernet switch with 7x10/100Base-T(X) and 3xGigabit combo ports, SFP socket, power supply included, JP power cord

Packing List
- DES-3073GC-P
- AC Power Cable
- ORing Tool CD
- Console Cable
- Quick Installation Guide

Optional Accessories (Can be purchased separately)
- Open-Vision M500 : Powerful Network Management Windows Utility Suit, 500 IP devices
- SFP100 series : 100Mbps SFP optical transceiver
- SFP 1G series : 1Gbps SFP optical transceiver
- DR-45 series : 45 Watts DIN-Rail power supply
- DR-75 series : 75 Watts DIN-Rail power supply
- DR-120 series : 120 Watts DIN-Rail power supply