



GIGABIT SWITCH INDUSTRIAL

Quick Installation Guide

IGS-7084GCP

Industrial Managed Gigabit Switch

Introduction

IGS-7084GCP is managed redundant ring Ethernet switch with 8xGigabit combo ports and 4x1000Base-X SFP ports. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 20ms over 250 units of connection) 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. ORing's thunder switch series provide advanced IP base bandwidth management which can limit maximum bandwidth for each IP device. User can configure IP camera and NVR with more bandwidth and limit other device bandwidth. ORing's thunder switch series also support application based QoS. Application based QoS can set highest priority for data stream according to TCP/UDP port number. ORing's special IP police function can permit only allowed IP address with MAC address to access the networking. Hacker cannot access the IP surveillance network without permission. It can avoid hacker from stealing video privacy data and attacking IP camera, NVR and controllers. ORing's Thunder series switch also provide advanced DOS/DDOS auto prevention. If there is any IP flow become big in short time, ORing's thunder switch will lock the source IP address for certain time to prevent the attack. It's hardware based prevention so it can prevent DDOS attack without using CPU resource. Except the Web-based interface, Telnet and Console(CLI) configuration, all functions of **IGS-7084GCP** can also be managed centralized and convenient by Open-Vision version 3.0. Therefore, the switch is one of the most reliable choice for highly-managed and Gigabit Fiber Ethernet application.

Features

- > Support 8xGigabit combo ports and 4x1000Base-X SFP ports
- > Support Jumbo frame up to 9K Bytes
- > Supports O-Ring (recovery time < 20ms over 250 units of connection), MSTP/RSTP/STP (IEEE 802.1s/w/D) for Ethernet Redundancy
- > Supports IP based bandwidth management
- > Supports application based QoS management
- > Supports IP police security function
- > Supports DOS/DDOS auto prevention
- > IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- > Supports SNMP v1/v2c/v3, RMON and 802.1Q VLAN Network Management
- > Support ACL, 802.1x User Authentication for security
- > Multiple notification for warning of unexpected event
- > Windows utility (Open-Vision) support centralized management and configurable by Web-based interface, Telnet and Console(CLI)
- > Support LLDP Protocol
- > Rigid IP-30 housing design
- > DIN-Rail and wall mounting enabled

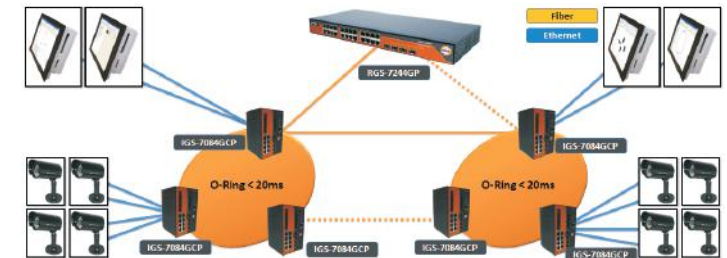
Specifications

ORing Switch Model	IGS-7084GCP
Physical Ports	
Gigabit combo Port in RJ-45 and SFP	8
1000Base-X SFP Port	4
Technology	
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 802.1s for MSTP (Multiple Spanning Tree Protocol), IEEE 802.1x for Authentication, IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)
MAC Table	8K
Priority Queues	4
Processing	Store-and-Forward
Switch Properties	Switch latency: 7 us Switch bandwidth: 24Gbps Max. Number of Available VLANs: 4096 IGMP multicast groups: 1024 Port rate limiting: User Define
Jumbo frame	Up to 9K Bytes
Security Features	IP Police security feature Enable/disable ports, MAC based port security Port based network access control (802.1x) VLAN (802.1) to segregate and secure network traffic Radius centralized password management SNMPv3 encrypted authentication and access security
Software Features	STP/RSTP/MSTP (IEEE 802.1D/w/s) Redundant Ring (O-Ring)with recovery time less than 20ms 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 IP based bandwidth management Application based QoS management DOS/DDOS auto prevention Port configuration, status, statistics, monitoring, security DHCP Client/Server
Network Redundancy	O-Ring, Open-Ring, STP, RSTP, MSTP
RS-232 Serial Console Port	RS-232 in RJ45 connector with console cable. Baud rate setting: 115200bps, 8, N, 1
LED Indicators	
Power Indicator	Green: Power LED x3
R.M. Indicator	Green: Flashing to indicate system operated in O-Ring Master mode
O-Ring indicator	Green: Indicate system operated in O-Ring mode
Fault Indicator	Amber: Indicate unexpected event occurred
10/100/1000Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Amber for Duplex/collision indicator
100/1000Base-X Fiber Port Indicator	Green for port Link/Act.
Fault contact	
Relay	Relay output to carry capacity of 1A at 24 VDC
Power	
Redundant Input power	Dual DC input 12-48VDC on 6-pin terminal block
Power consumption(Typ.)	22 Watts
Overload current protection	Present
Reverse polarity protection	Present on terminal block
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	96.4(W)x108.5(D)x154(H) mm (3.8x4.27x6.06 inch.)
Weight (g)	1420 g
Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-10 to 60°C (14 to 140°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
Warranty	5 years

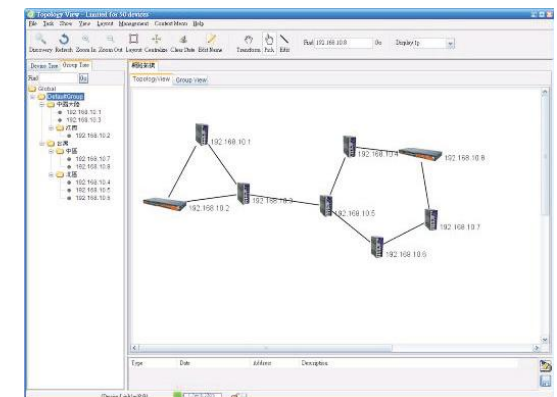
Open-Vision

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.

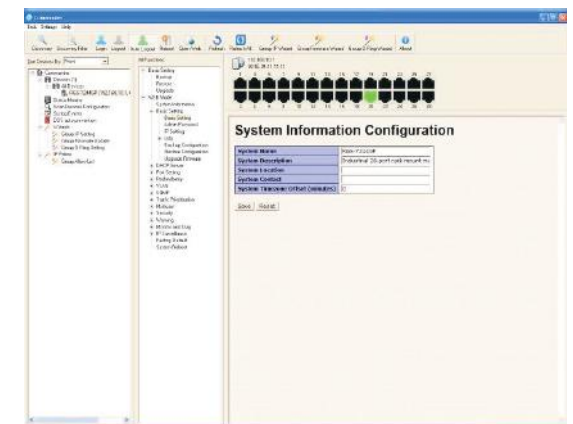
Fiber Network connection



Topology View



Monitoring and Configuration interface



ORing Industrial Networking Corp.

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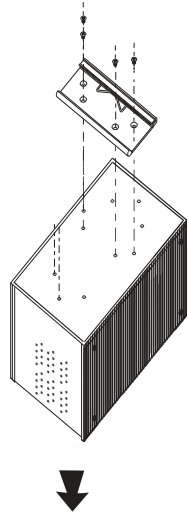
Quick Installation Guide

IGS-7084GCP

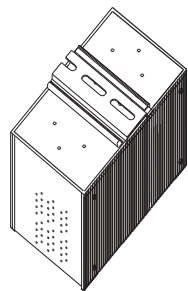
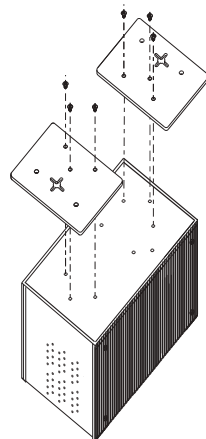
Industrial Managed Gigabit Switch

Installation

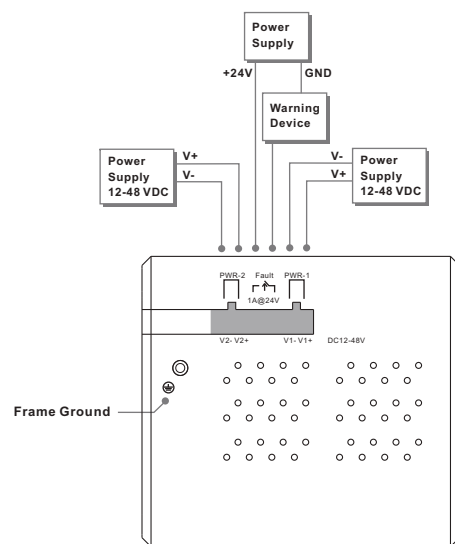
DIN-Rail Install Step



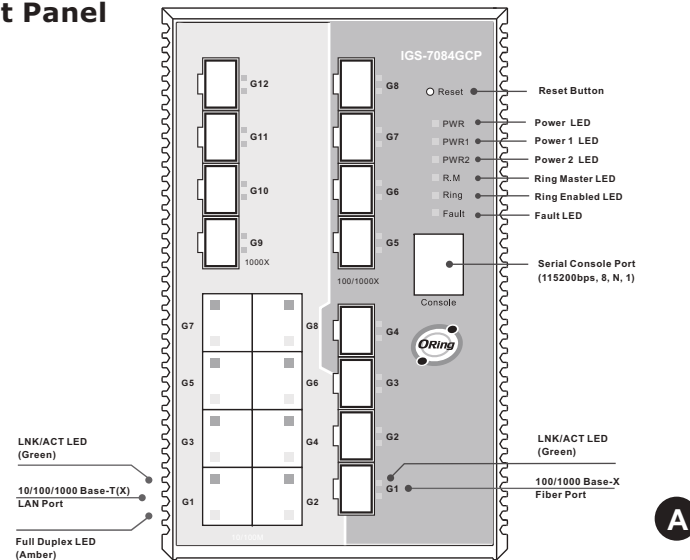
Wall-mounted Install Step



Power Connection Guide



Front Panel



Packing list

Model name	Front Panel	Model Description	Accessory
IGS-7084GCP	A	Industrial 12-port managed Gigabit Ethernet switch with 8xGigabit combo ports and 4x1000Base-X, SFP socket	⊗ X 1, ⊗ X 8, ⊗ X 12, ⊗ X 6, ⊗ X 1, ⊗ X 1, ⊗ X 2, ⊗ X 1, ⊗ X 1

Communication Connections

1000Base-T Ethernet Connection

RJ45 (8-pin, MDI) Port Pinouts

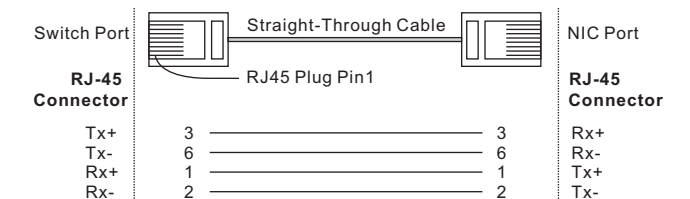
Pin	MDI
1	BI_DA+
2	BI_DA-
3	BI_DB+
4	BI_DC+
5	BI_DC-
6	BI_DB-
7	BI_DD+
8	BI_DD-

RJ45 (8-pin, MDI-X) Port Pinouts

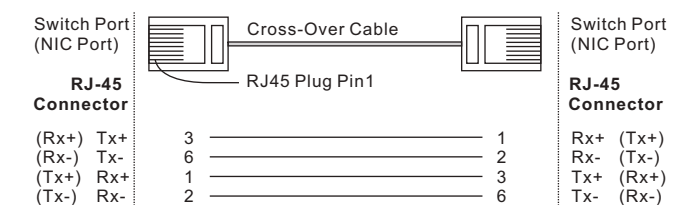
Pin	MDI-X
1	BI_DB+
2	BI_DB-
3	BI_DA+
4	BI_DD+
5	BI_DD-
6	BI_DA-
7	BI_DC+
8	BI_DC-

10/100Base-T(X) Ethernet Connection

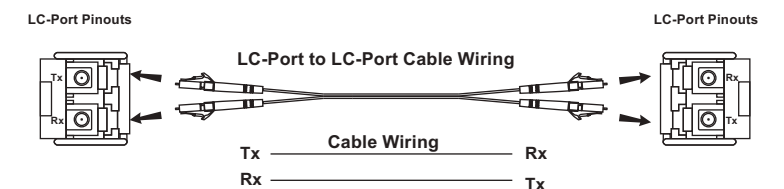
RJ45 (8-pin) to RJ45 (8-Pin) Straight-Through Cable Wiring



RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring



100/1000Base-X SFP Port Connection



Accessory

- ① 6-Pin Terminal block
- ② Dust Cover (RJ-45)
- ③ Dust Cover (SFP)
- ④ Flat Screw (M3 X5)
- ⑤ CD
- ⑥ QIG
- ⑦ Wall-mounted kit
- ⑧ Console Cable
- ⑨ 88mm DIN-Rail kit