

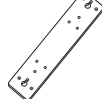



Introduction

The **IGPS-1082GP series**, which includes the **IGPS-1082GP** and the **IGPS-1082GP-24V** models, are full Gigabit unmanaged PoE Ethernet switches with 8x10/100/1000Base-T(X) P.S.E. ports and 2x100/1000Base-X SFP ports. To enable higher cost efficiency, the series support Power-over-Ethernet, a technology that transmits electrical power along with data on a standard twisted-pair cable. The total power budget for **IGPS-1082GP** and **IGPS-1082GP-24V** is 180W and 120W respectively, both with maximum 30W per port. Configuration of SFP speed is made easy with a 4-pin DIP switch which can also be set to send power failure alerts. With a wide operating temperature range from -40°C to 75°C and dual power inputs, they can work perfectly in harsh environments.

Package Contents





The device is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

Contents	Pictures	Number
IGPS-1082GP or IGPS-1082GP-24V		X 1
DIN-rail Kit		X 1
Wall-mount Kit		X 1
QIG		X 1

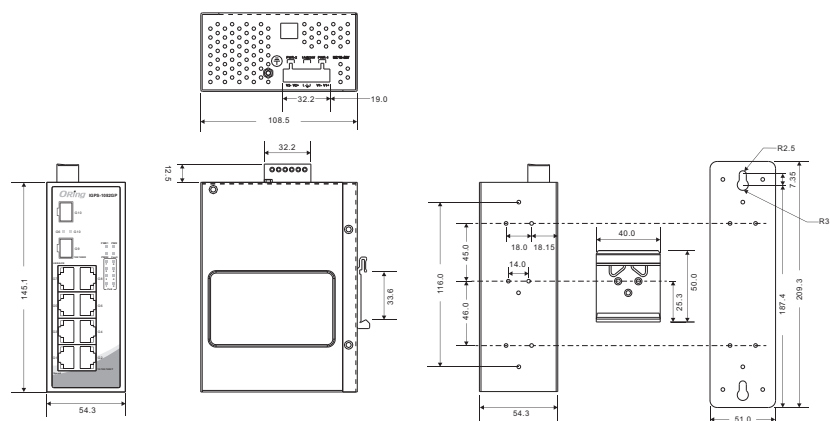
Preparation

Before you begin installing the switch, make sure you have all of the package contents available and a PC with Microsoft Internet Explorer 6.0 or later, for using web-based system management tools.

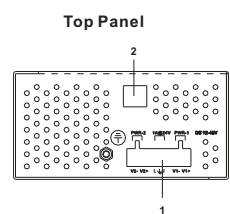
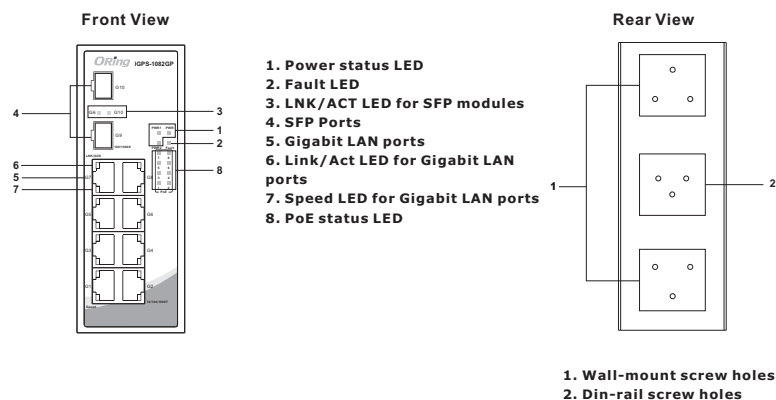
Safety & Warnings

-  **Elevated Operating Ambient:** If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.
-  **Reduced Air Flow:** Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
-  **Mechanical Loading:** Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
-  **Circuit Overloading:** Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate

Dimension



Panel Layouts

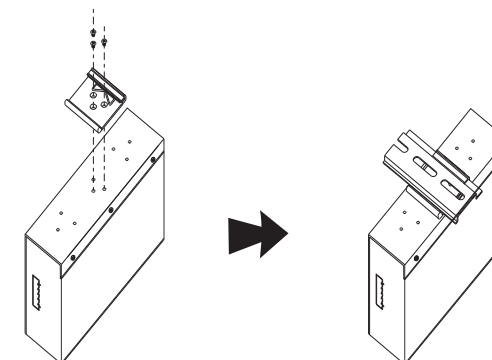


1. Terminal blocks: PWR1, PWR2, Relay
2. DIP switch

Installation

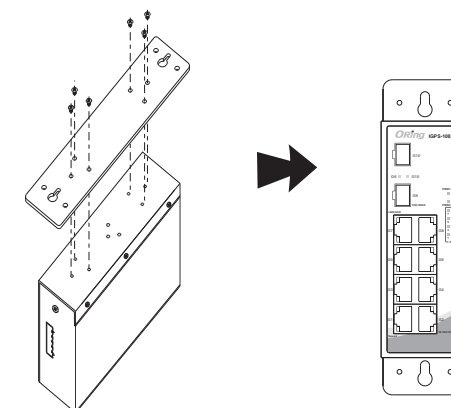
DIN-rail Installation

- Step 1:** Slant the switch and screw the Din-rail kit onto the back of the switch, right in the middle of the back panel.
- Step 2:** Slide the switch onto a DIN-rail from the Din-rail kit and make sure the switch clicks into the rail firmly.



Wall-mounting

- Step 1:** Screw the wall-mount kit onto the rear panel of the switch. A total of six screws are required, as shown below.
- Step 2:** Use the switch, with wall mount plates attached, as a guide to mark the correct locations of the four screws.
- Step 3:** Insert a screw head through the large parts of the keyhole-shaped apertures, and then slide the switch downwards. Tighten the screws for added stability.



Dip Switch

DIP-Switch 1	Power-2 failed warning : (ON) enable, (OFF) disable
DIP-Switch 2	Power-1 failed warning : (ON) enable, (OFF) disable
DIP-Switch 3	DIP switch 3 and 4 (ON) : SFP speed setting to 100Mbps
DIP-Switch 4	DIP switch 3 and 4 (OFF) : SFP speed setting to 1000Mbps(default)

Network Connection

The switch provides standard Ethernet ports. According to the link type, the switch uses CAT 3,4,5,5e UTP cables to connect to any other network devices (PCs, servers, switches, routers, or hubs). Please refer to the following table for cable specifications.

Cable Types and Specifications:

Cable	Type	Max. Length	Connector
10BASE-T	Cat. 3, 4, 5 100-ohm	UTP 100 m (328 ft)	RJ-45
100BASE-TX	Cat. 5 100-ohm UTP	UTP 100 m (328 ft)	RJ-45
1000BASE-T	Cat. 5 / Cat. 5e 100-ohm UTP	UTP 100 m (328 ft)	RJ-45

For pin assignments for different types of cables, please refer to the following tables.

10/100Base-T(X) P.S.E. RJ-45 Port	
Pin No.	Assignments
# 1	TD+ with PoE Power input +
# 2	TD- with PoE Power input +
# 3	RD+ with PoE Power input -
# 6	RD- with PoE Power input -

1000Base-T P.S.E. RJ-45 Port	
Pin No.	Assignments
# 1	BI_DA+ with PoE Power input +
# 2	BI_DA- with PoE Power input +
# 3	BI_DB+ with PoE Power input -
# 4	BI_DC+
# 5	BI_DC-
# 6	BI_DB- with PoE Power input -
# 7	BI_DD+
# 8	BI_DD-

10/100 Base-T(X) MDI/MDI-X		
Pin Number	MDI port	MDI-X port
1	TD+(transmit)	RD+(receive)
2	TD-(transmit)	RD-(receive)
3	RD+(receive)	TD+(transmit)
4	Not used	Not used
5	Not used	Not used
6	RD-(receive)	TD-(transmit)
7	Not used	Not used
8	Not used	Not used

1000Base-T MDI/MDI-X		
Pin Number	MDI port	MDI-X port
1	BI_DA+	BI_DB+
2	BI_DA-	BI_DB-
3	BI_DB+	BI_DA+
4	BI_DC+	BI_DD+
5	BI_DC-	BI_DD-
6	BI_DB-	BI_DA-
7	BI_DD+	BI_DC+
8	BI_DD-	BI_DC-

Note: "+" and "-" signs represent the polarity of the wires that make up each wire pair.

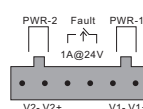
Wiring

Power inputs

The switch supports dual redundant power supplies, Power Supply 1 (PWR1) and Power Supply 2 (PWR2). The connections for PWR1, PWR2 and the RELAY are located on the terminal block.

STEP 1: Insert the negative/positive wires into the V-/V+ terminals, respectively.

STEP 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.



Relay contact

The two sets of relay contacts of the 6-pin terminal block connector are used to detect user-configured events. The two wires attached to the fault contacts form a close circuit when a user-configured event is triggered. If a user-configured event does not occur, the fault circuit remains opened.

Grounding

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screws to the grounding surface prior to connecting devices.

Configurations

After installing the switch, the green power LED should turn on. Please refer to the following table for LED indication.

LED	Color	Status	Description
PW	Green	On	Power is on
PW1	Green	On	DC power module 1 activated
PW2	Green	On	DC power module 2 activated
Fault	Amber	On	Errors occur
Gigabit Ethernet ports			
ACT/LNK	Green	On	Port is connected
Speed	Green	On	Port runs at 1000Mbps
	Amber	On	Port runs at 100Mbps
	Green/Amber	Off	Port runs at 10Mbps
PoE	Green	On	PoE power is enabled
SFP ports			
LNK/LNK	Green	On	Port is connected

Specifications

ORing Switch Model	IGPS-1082GP	IGPS-1082GP-24V
Physical Ports		
10/100/1000Base-T(X) with P.S.E. Ports in RJ45 Auto MDI/MDIX	8 (P.S.E. with IEEE 802.3at)	
100/1000Base-X with SFP port	2	
Technology		
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T IEEE 802.2 for 1000Base-X IEEE 802.3x for Flow control IEEE 802.3af/at PoE specification	
MAC Table	8K	
Processing	Store-and-Forward	
Switch Properties	Switch latency: less than 7us Switch bandwidth: 20Gbps	
Jumbo frame	Up to 9.6K Bytes	
Packet buffer	4Mbit	
LED Indicators		
Power Indicator (PWR)	Green : Power LED x 3	
Fault Indicator (Fault)	Amber : Indicate power failed even warning	
10/100/1000Base-T(X) RJ45 Port Indicator	Green for port Link/Act. Green for PoE enable indicator.	
100/1000Base-X SFP Port Indicator	Green for port Link/Act.	
DIP Switch		
DIP-Switch 1	Power-2 failed warning : (ON) enable, (OFF) disable	
DIP-Switch 2	Power-1 failed warning : (ON) enable, (OFF) disable	
DIP-Switch 3	DIP switch 3 and 4 (ON) : SFP speed setting to 100Mbps	
DIP-Switch 4	DIP switch 3 and 4 (OFF) : SFP speed setting to 1000Mbps(default)	
Fault Contact		
Relay	Relay output to carry capacity of 1A at 24VDC	
Power		
Redundant Input power	Dual DC inputs. 50-57VDC on 6-pin terminal block	Dual DC inputs. 12-57VDC on 6-pin terminal block
Power consumption(Typ.)	11 Watts	11 Watts
PoE Power budget	180 Watts	60W at 12~24VDC, 120W at 24~57VDC
Overload current protection	Present	
Reverse Polarity Protection	Present	
Physical Characteristic		
Enclosure	IP-30	
Dimension (W x D x H)	54.3(W)x108.5(D)x145.1(H) mm (2.13x4.27x5.71 inch.)	
Weight (g)	889 g	916 g

Environmental	
Storage Temperature	-40 to 85°C (-40 to 185°F)
Operating Temperature	-40 to 75°C (-40 to 167°F)
Operating Humidity	5% to 95% Non-condensing
Regulatory Approvals	
EMC	CE EMC (EN 55024, EN 55032), FCC Part 15 B
EMI	EN 55032, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15 B class A
EMS	EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFME), IEC/EN 61000-4-11 (DIP))
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1 compliant
Warranty	5 years
MTBF (hrs)	581633 hrs
	537330 hrs