GIGABIT PoE SWITCH INDUSTRIAL

ORing

Quick Installation Guide

IGPS-1042GP-24V

Industrial Unmanaged Gigabit PoE Switch

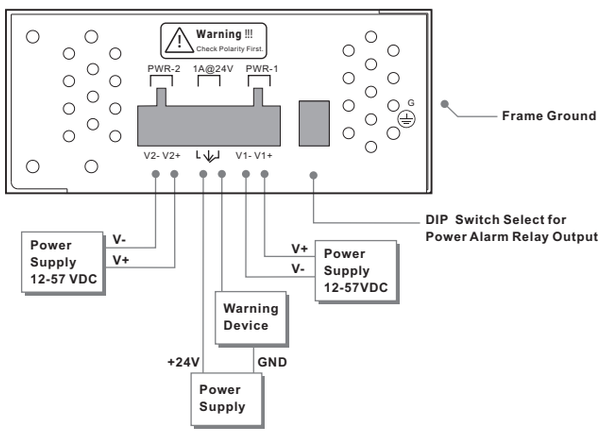
Introduction

IGPS-1042GP-24V is an unmanaged PoE Ethernet switch with P.S.E. function. **IGPS-1042GP-24V** supports Power over Ethernet, a system to transmit electrical power, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. **IGPS-1042GP-24V** with 4x10/100/1000Base-T(X) P.S.E. (Power Sourcing Equipment) ports and 2x100/1000Base-X SFP port. The optical network speed of SFP port can be set by changing the settings of the DIP-Switch below. P.S.E. is a device (switch or hub for instance) that will provide power in a PoE setup. The wide operating temperature range from -40°C to 75°C can satisfy most of operating environment. Therefore, the switch is one of the most reliable choices for PoE Ethernet application.

Features

- **IGPS-1042GP-24V provide 4x10/100/1000Base-T(X) PoE (P.S.E.) ports**
- **Supports P.S.E. based on IEEE 802.3at standard up to 30 Watts per port and total power budget is 120Watts**
- **Advanced PoE power boost technology to support dual 24VDC power inputs**
- **Supports jumbo frame up to 9KBytes**
- **SFP port supports 100Base-FX and 1000Base-X speed**
- **Support auto-negotiation and auto-MDI/MDI-X**
- **Support store and forward transmission**
- **Support flow control**
- **Rigid IP-30 housing design**
- **DIN-Rail and wall mounting enabled**

Power Connection Guide



DIP Switch Function

DIP-1	DIP-2	Description
OFF	OFF	Power failure relay alarm disabled
ON	OFF	PWR-1 failure, relay alarm enabled
OFF	ON	PWR-2 failure, relay alarm enabled
ON	ON	PWR-1 or PWR-2 failure, relay alarm enabled

Specifications

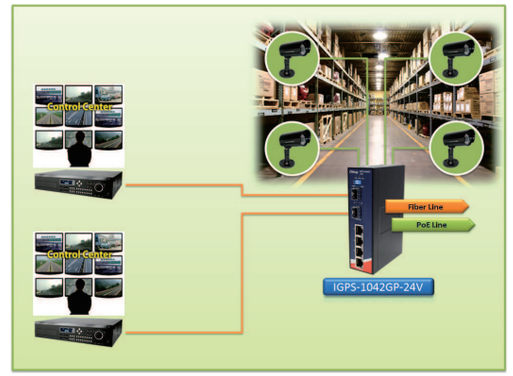
ORing Switch Model	IGPS-1042GP-24V
Physical Ports	
10/100/1000Base-T(X) P.S.E. Port in RJ45 Auto MDI/MDIX	4
100/1000Base-X SFP port	2
Technology	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.3x for Flow control IEEE 802.3at PoE specification (up to 30 Watts per port for P.S.E.) **12 ~ 24VDC : PoE output 60W Max.** **24 ~ 57VDC : PoE output 120W Max.**
MAC Table	4096 MAC addresses
Processing	Store-and-Forward
Jumbo Frame	Up to 9KBytes
LED Indicators	
Power indicator	Green: Power LED x2
Fault indicator	Amber: Indicate PWR1 or PWR2 failure
10/100/1000Base-T(X) RJ45 port indicator and PoE indicator (P1~ P4)	Green for port Link/Act. Green for power injected.
100/1000Base-X SFP port indicator	Green for port Link/Act.
SFP Speed DIP-Switch	
DIP-Switch 1/2 (port 6/5)	DIP-Switch (ON) : SFP speed setting to 100Mbps DIP-Switch (OFF) : SFP speed setting to 1000Mbps
Relay Output DIP-Switch	
DIP-Switch 1	Power-1 failed warning : (ON) enable, (OFF) disable
DIP-Switch 2	Power-2 failed warning : (ON) enable, (OFF) disable
Fault Contact	
Relay	Relay output to carry capacity of 1A at 24 VDC
Power	
Redundant Input power	Dual DC inputs 12-57VDC on 6-pin terminal block
PoE output power	60 Watts (12~24VDC) / 120 Watts (24~57VDC)
Power consumption(Typ.)	7W (power device not included)
Overload current protection	Present
Reverse polarity protection	Present
Physical Characteristic	
Enclosure	IP-30
Dimension (W x D x H)	41(W)x94.9(D)x144.3(H) mm (1.62x3.74x5.68inch.)
Weight (g)	650g
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	EN 55032, EN 55024(CE EMC), FCC Part 15 B, EN 550121-1, EN 50121-3-2(EN50155), EN 61000-3-2, EN 61000-3-3
EMI	CISPR 32, EN 55032, FCC Part 15 B class A ,C-Tick
EMS	IEC 61000-4-2 (ESD), IEC 61000-4-3 (RS), IEC 61000-4-4 (EFT), IEC 61000-4-5 (Surge), IEC 61000-4-6 (CS), IEC 61000-4-8 (PFMF), IEC 61000-4-11(DIP)
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	EN60950-1
MTBF	833512 hr
Warranty	5 years

Note : HW version 5.0

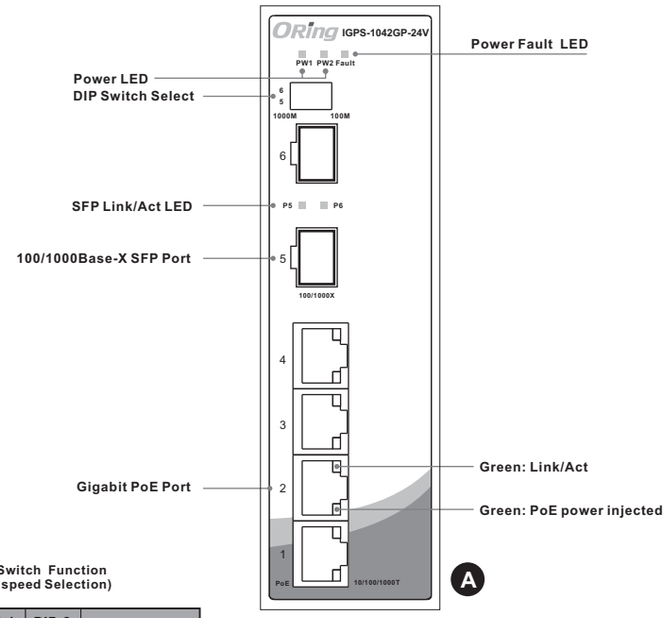
Practical Operation

IGPS-1042GP-24V can be used in connecting several PoE P.D. Ethernet devices like IP-Camera or other Ethernet devices. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary DC power input fails, the backup power input will take over immediately to guarantee a non-stop operation.

Connections of Ethernet devices



Front Panel



DIP Switch Function (SFP speed Selection)

DIP-1 port 6	DIP-2 port 5	Description
OFF		1000Mbps
ON		100Mbps

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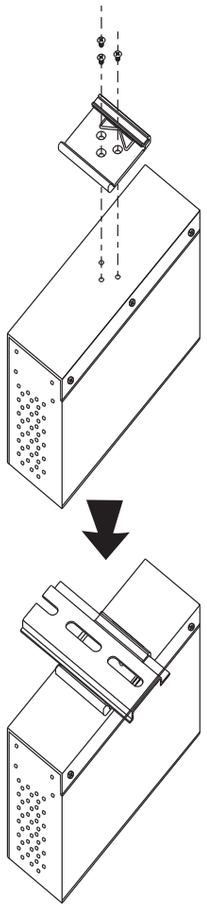
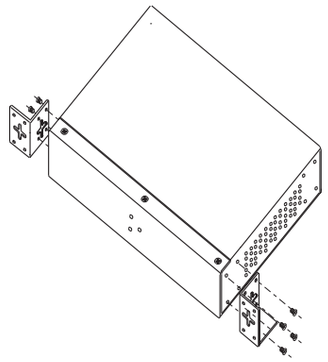
Installation

- **DIN-Rail Install Step**

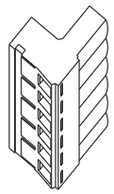


- **Wall-mounted Install Step**



Accessory

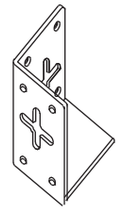
① 6-Pin Terminal block



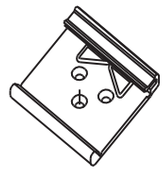
② Dust Cover (RJ-45)

③ Round Screw (M3 X3)

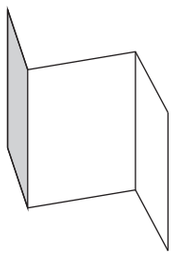
④ Wall-mounted kit



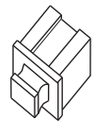
⑤ 40mm DIN-Rail kit



⑥ QIG



⑦ Dust Cover (SFP)

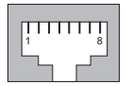


Communication Connections

- **1000Base-T Ethernet Connection**

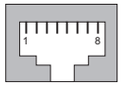
■ **RJ45 (8-pin, MDI) Port Pinouts**

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-



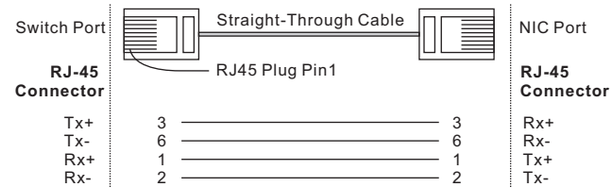
■ **RJ45 (8-pin, MDI-X) Port Pinouts**

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-

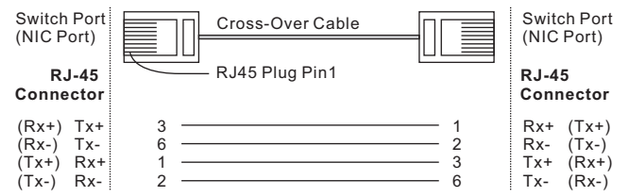


- **10/100Base-T(X) Ethernet Connection**

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



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



- **PoE Pin Definition**

■ **10/100Base-T(X) P.S.E. RJ-45 port**

RJ45 Pin Definition	
Pin No.	Description
# 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**

RJ45 Pin Definition	
Pin No.	Description
# 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-

Packing list

Model name	Front Panel	Model Description	Accessory
IGPS-1042GP-24V	A	Industrial 6-port unmanaged Gigabit PoE Ethernet switch with 4x10/100/1000Base-T(X) P.S.E and 2x100/1000Base-X, SFP socket, 24VDC power inputs	①X 1, ②X 4, ③X 8, ④X 2, ⑤X 1, ⑥X 1, ⑦X 2

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