

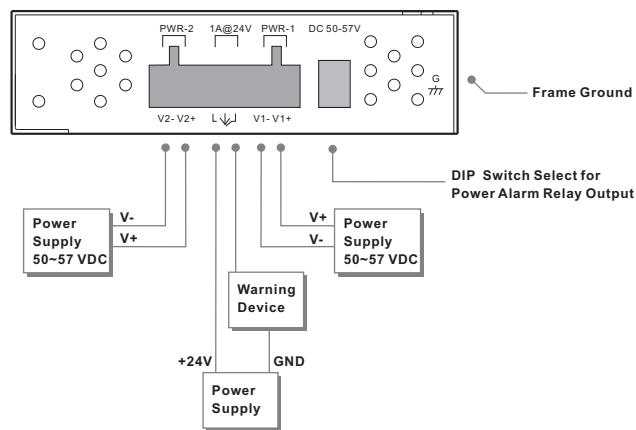
### Introduction

**IGPS-1042GPA** is an unmanaged PoE Ethernet switch with P.S.E. function. **IGPS-1042GPA** 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-1042GPA** has 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-1042GPA 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 120Watts**
- > **SFP port support 100Base-FX and 1000Base-X dual speed**
- > **Supports jumbo frame up to 10KBytes**
- > **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 (Power Side)**

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

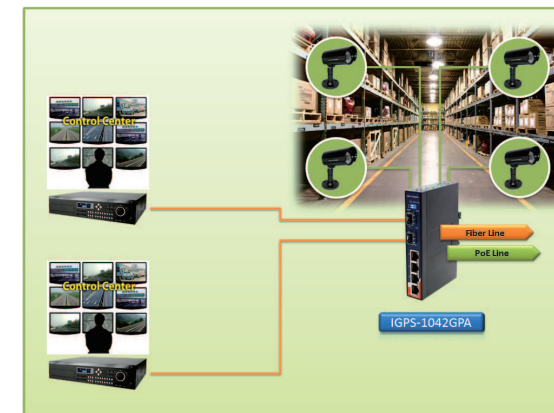
ORing Switch Model	IGPS-1042GPA
<b>Physical Ports</b>	
10/100/1000Base-T(X) P.S.E. Port in RJ45 Auto MDI/MDIX	4
100/1000Base-X SFP port	2
<b>Technology</b>	
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX and 100Base-FX IEEE 802.3ab for 1000Base-T IEEE 802.3z for 1000Base-X IEEE 802.3x for Flow control IEEE 802.3at PoE specification (up to 30 Watts per port for P.S.E.)
MAC Table	1K MAC addresses
Processing	Store-and-Forward
Jumbo Frame	Up to 10KBytes
<b>LED Indicators</b>	
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.
<b>SFP Speed DIP-Switch</b>	
DIP-Switch 1/2 (port 6/5)	DIP-Switch (ON) : SFP speed setting to 100Mbps DIP-Switch (OFF) : SFP speed setting to 1000Mbps
<b>Relay Output DIP-Switch</b>	
DIP-Switch 1	Power-1 failed warning : (ON) enable, (OFF) disable
DIP-Switch 2	Power-2 failed warning : (ON) enable, (OFF) disable
<b>Fault Contact</b>	
Relay	Relay output to carry capacity of 1A at 24 VDC
<b>Power</b>	
Redundant Input power	Dual DC inputs 50-57VDC on 6-pin terminal block
PoE Power Budget	120Watts
Power consumption(Typ.)	7 W (power device not included)
Overload current protection	Present
Reverse polarity protection	Present
<b>Physical Characteristic</b>	
Enclosure	IP-30
Dimension (W x D x H)	26.1 (W) x 94.9 (D) x 144.3 (H) mm (1.03 x 3.74 x 5.68 inches)
Weight (g)	458g
<b>Environmental</b>	
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
<b>Regulatory Approvals</b>	
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)
Shock	IEC60068-2-27
Free Fall	IEC60068-2-31
Vibration	IEC60068-2-6
Safety	IEC 60950-1, UL 60950-1, EN 60950-1
<b>MTBF</b>	910925 hours
<b>Warranty</b>	5 years

Note: HW version 5.0

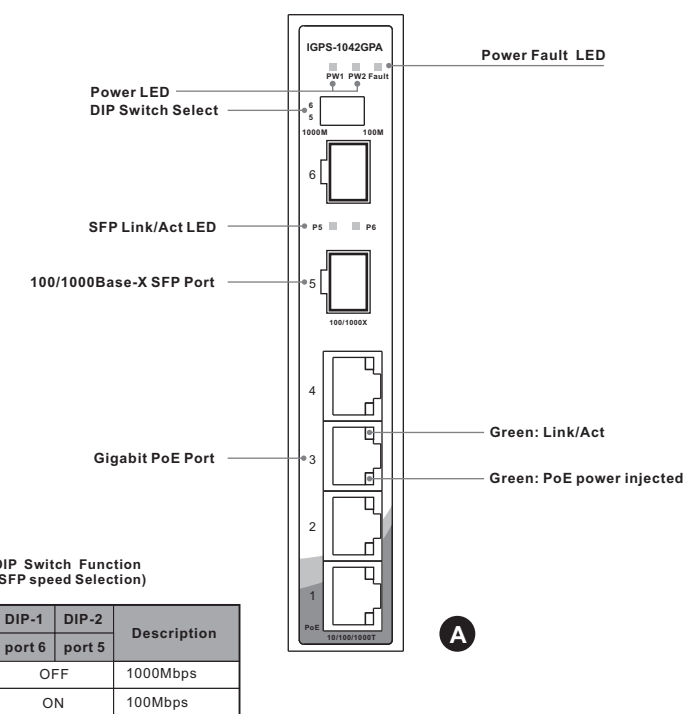
### Practical Operation

**IGPS-1042GPA** 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**

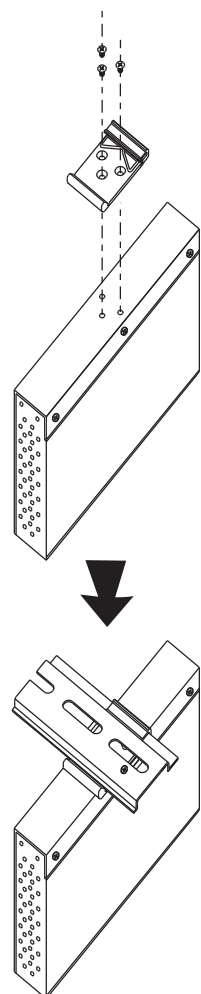


### Front Panel

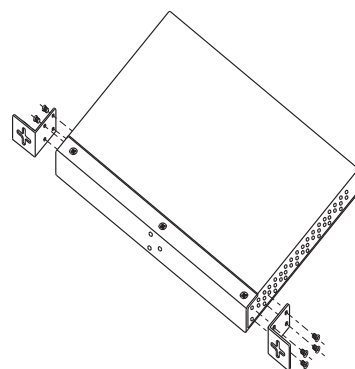


Installation

DIN-Rail Install Step



Wall-mounted Install Step



Accessory

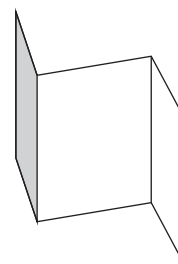
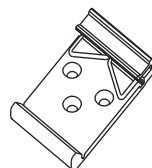
- ① 6-Pin Terminal block
- ② Dust Cover (RJ-45)
- ③ Dust Cover (SFP)



- ④ Round Screw (M3 X3)
- ⑤ Wall-mounted kit (for Slim Type)



- ⑥ 25mm DIN-Rail kit
- ⑦ QIG



Packing list

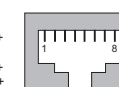
Model name	Front Panel	Model Description	Accessory
IGPS-1042GPA	A	Industrial 6-port slim type unmanaged Gigabit PoE Ethernet switch with 4x10/100/1000Base-T(X) P.S.E and 2x100/1000Base-X, SFP socket	⊗X 1, ⊗X 4, ⊗X 2, ⊗X 8, ⊗X 2, ⊗X 1, ⊗X 1

Communication Connections

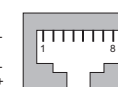
1000Base-T Ethernet Connection

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

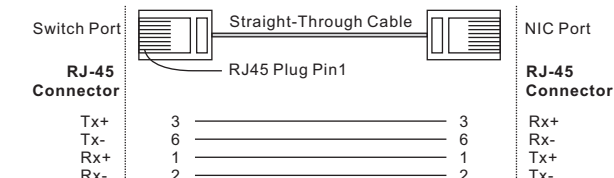


Pin	MDI-X
1	BI_DB+
2	BI_DB-
3	BI_DA+
4	BI_DD+
5	BI_DD-
6	BI_DA-
7	BI_DC+
8	BI_DC-

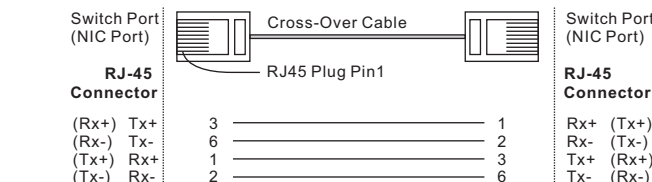


10/100Base-T(X) Ethernet Connection

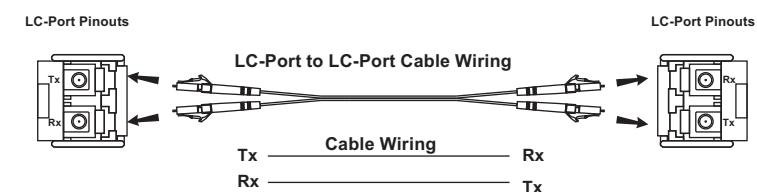
- RJ45 (8-pin) to RJ45 (8-Pin) Straight-Through Cable Wiring
- RJ45 (8-pin) to RJ45 (8-Pin) Cross-Over Cable Wiring



100/1000Base-X SFP Port Connection



100/1000Base-X SFP Port Connection



Pin Definition

10/100Base-T(X) PoE P.S.E. 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 PoE P.S.E. 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-

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