## IGPS-1082GP Series



## Industrial 10-port unmanaged Gigabit PoE Ethernet switch with 8x10/100/1000Base-T(X) P.S.E. and 2x100/1000Base-X, SFP socket

## Features

- Support 8 ports IEEE 802.3at compliant PoE and total power budget is 120 W with maximum 30W per port of 24 V model
- Total power budget is 180 Watts with maximum 30Watts per port of IGPS1082GP model
- Support up to 9.6K Bytes Jumbo Frame
- Support up to 4Mbit Packet buffer
- Support auto-negotiation and auto-MDI/MDI-X
- Support store and forward transmission
- Support flow control

- Provided relay output for power failed warning system
- Provide DIP-switch to setting SFP speed
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled

1


## Introduction

IGPS-1082GP series is full Gigabit unmanaged PoE Ethernet switches with $8 \times 10 / 100 / 1000$ Base-T(X) P.S.E. ports and $2 \times 100 / 1000$ Base-X SFP ports. IGPS$1082 G P$ series also support Power over Ethernet, a system to transmit electrical power up to $\mathbf{3 0}$ watts, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. Each IGPS-1082GP series switch has $8 \times 10 / 100 / 1000$ Base-T(X) P.S.E. (Power Sourcing Equipment) ports. P.S.E. is a device (switch or hub for instance) that will provide power in a PoE connection. And support wide operating temperature from $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$. Therefore, the switch is one of the most reliable choices for rolling stock and highly-unmanaged PoE Ethernet application.

## Practical Operation

IGPS-1082GP can be used in connecting several Ethernet devices like Ethernet I/0, IP-Camera or other Ethernet switches. In addition, there are two different power inputs at terminal block to avoid interruption caused by power down. When the primary $D C$ power input fails, the backup power input will take over immediately to guarantee a non-stop operation.


| 10/100Base-T(X) P.S.E. RJ-45 Port |  |
| :---: | :---: |
| RJ-45 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 |  |
| :---: | :---: |
| RJ-45 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- |

## Dimension


(Unit=mm)

## 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 |  |
| Physical Ports |  |  |
| Ethernet Standards | IEEE 802.3 for 10Base-T <br> IEEE 802.3u for 100Base-TX and 100Base-FX <br> IEEE 802.3ab for 1000Base-T <br> IEEE 802.3 z for 1000Base-X <br> IEEE 802.3x for Flow control <br> IEEE 802.3af/at PoE specification |  |
| MAC Table | 8k |  |


| Processing | Store-and-Forward |  |
| :---: | :---: | :---: |
| Switch Properties | Switching latency: less than 7us Switching 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 PoE Port Indicator | Green for Port Link/Act indicator <br> Dual color LED for speed indicator: Green for 1000Mbps / Amber for 100Mbps / off-light for 10Mbps |  |
| 100/1000Base-X SFP Port Indicator | Green for port Link/Act. |  |
| PoE Indicator | Green for PoE enable indicator. |  |
| 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 (0FF) : 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. $50 \sim 57 \mathrm{VDC}$ on 6-pin terminal block | Dual DC inputs. $12 \sim 57$ VDC on 6-pin terminal block |
| Power consumption (Typ.) | 11W | 11W |
| PoE Power budget | 180W | 60 W at 12~24VDC, 120W at 24~57VDC |
| Overload current protection | Present |  |
| Reverse Polarity Protection | Present |  |
| Physical Characteristic |  |  |
| Enclosure | \|P-30 |  |
| Dimension ( $\mathrm{W} \times \mathrm{D} \times \mathrm{H}$ ) | 54.3 (W) $\times 108.3$ (D) $\times 145.1$ (H) mm (2.13x4.26x5.71 inches.) |  |
| Weight (g) | 889 g | 916g |
| Environmental |  |  |
| Storage Temperature | -40 to $85^{\circ} \mathrm{C}\left(-40\right.$ to $\left.185^{\circ} \mathrm{F}\right)$ |  |
| Operating Temperature | -40 to $75^{\circ} \mathrm{C}\left(-40\right.$ to $\left.167^{\circ} \mathrm{F}\right)$ |  |
| 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), <br> IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11 (DIP)) |  |
| Shock | IEC60068-2-27 |  |
| Free Fall | IEC60068-2-31 |  |
| Vibration | IEC60068-2-6 |  |
| Safety | EN60950-1 compliant |  |
| MTBF | 581633hrs | 537330hrs |
| Warranty | 5 years |  |

## IGPS-1 AABCC-DDD

| Code Definition | 10/100/1000Base-T(X) P.S.E. Port Number | 10/100/1000Base-T(X) P.S.E. Port Number | Additional Port Number | 10/100/1000Base-T(X) P.S.E. Port Number |
| :---: | :---: | :---: | :---: | :---: |
| Option | - 08: 8 ports | -2:2 ports | - GP: Gigabit SFP ports | - 24V: 24VDC power inputs supported |


| Model Name |  | Description |
| :--- | :--- | :--- |
| Available <br> Model | IGPS-1082GP | Industrial 10-port unmanaged Gigabit PoE Ethernet switch with $8 \times 10 / 100 / 1000 B a s e-T(X)$ <br> SFP socket |
|  | IGPS-1082GP-24V | Industrial 10 -port unmanaged Gigabit PoE Ethernet switch with $8 \times 100 / 1000 B a s e-X$, <br> SFP socket, 24VDC power inputs |

## Packing List

- IGPS-1082GP / -24V x 1
- Quick Installation Guide x 1
- DIN-Rail Kit $x 1$
- Wall-mount Kit x 2


## Optional Accessories (Can be purchased separately)

- SFP100 series : 100Mbps SFP optical transceiver
- SFP 1 G series : 1Gbps SFP optical transceiver
- DR/SDR/DRP 48/24V Series Din rail power supply

