

Product Specifications

24-Port 10/100/1000T 802.3at PoE + 2-Port 1000X SFP Gigabit Ethernet Switch

GSW-2620HP

Version 3.0

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Change History:

| Revision: | Date: | Author: | Change List |
|-------------|------------|-----------|---|
| Version 3.0 | 2020/4/27 | Angeline | Hardware Revision. - Add DIP switch |
| Version 2.0 | 2019/3/4 | Marc Liao | Initial Release Hardware Revision. - PoE Controller Chip Replacement PowerDsine PD69102 to IC Plus IP808 - Hardware Per Port PoE PIN Assignment change to be 1/2 (+), 3/6 (-) |
| Version 1.0 | 2015/10/28 | Marc Liao | Initial Release |

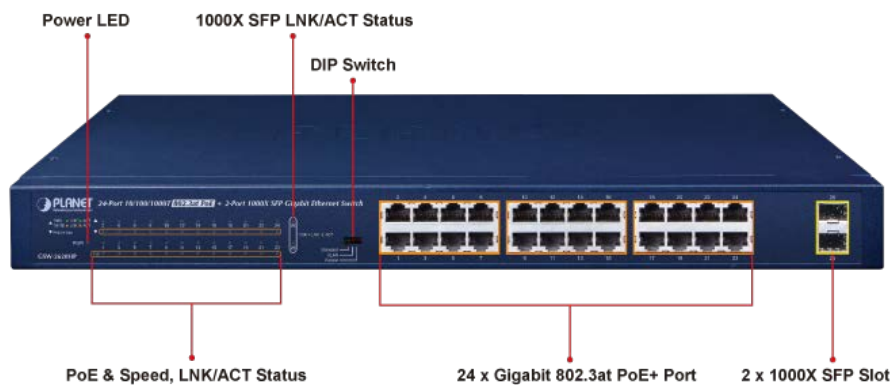
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| Author: | Marc Liao | Editor: | Marc Liao |
| Reviewed By: | | Approved By: | Kent Kang |

1. PRODUCT DESCRIPTION



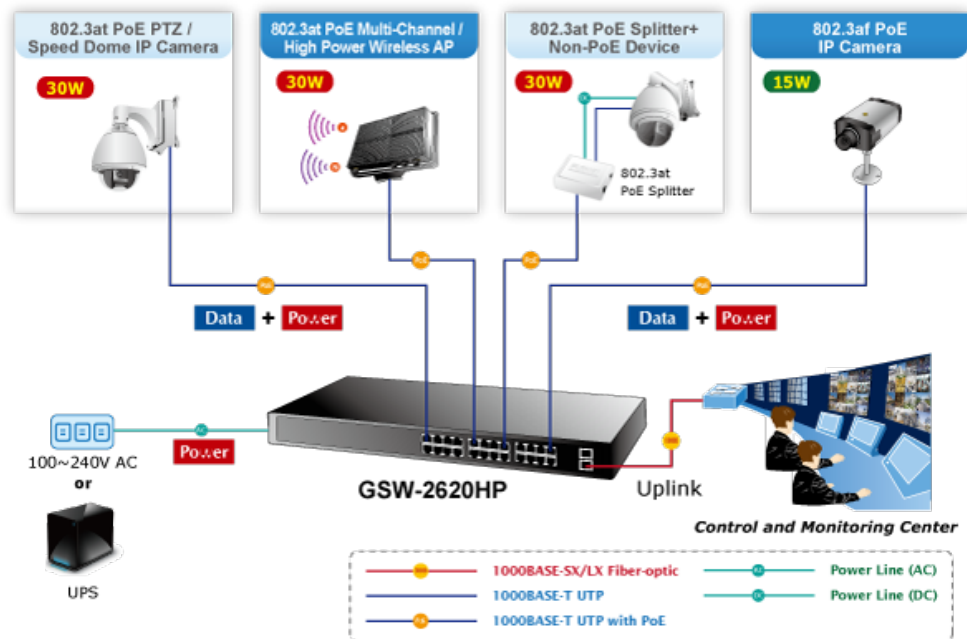
Cost-optimized, Configure-free Gigabit PoE+ Switch for System Integrators

PLANET GSW-2620HP, an ideal Gigabit PoE Switch, provides a cost-effective advantage to local area networks of SMBs. Offering **Layer 2 data packet switching and stable operation**, this model also complies with **IEEE 802.3at Power over Ethernet Plus (PoE+)** at an affordable price. The GSW-2620HP is equipped with **24 10/100/1000BASE-T** Gigabit Ethernet ports and **2 1000BASE-X SFP** interfaces with inner power system. Its **24** Gigabit Ethernet ports are integrated with an 802.3at PoE+ injector function. It offers a rack-mountable, safe and reliable power solution for SMBs deploying Power over Ethernet networks.



IEEE 802.3at PoE+ Compliant Power Source Switch

The PoE in-line power following the **IEEE 802.3at/af standard** makes the GSW-2620HP able to deliver Gigabit speed data and up to **30 watts** of power per port to 24 PoE compliant powered devices (PDs) with a combined power output budget of up to 220 watts. The GSW-2620HP provides more flexibility in power requirement for all kinds of PDs with affordable installation costs.

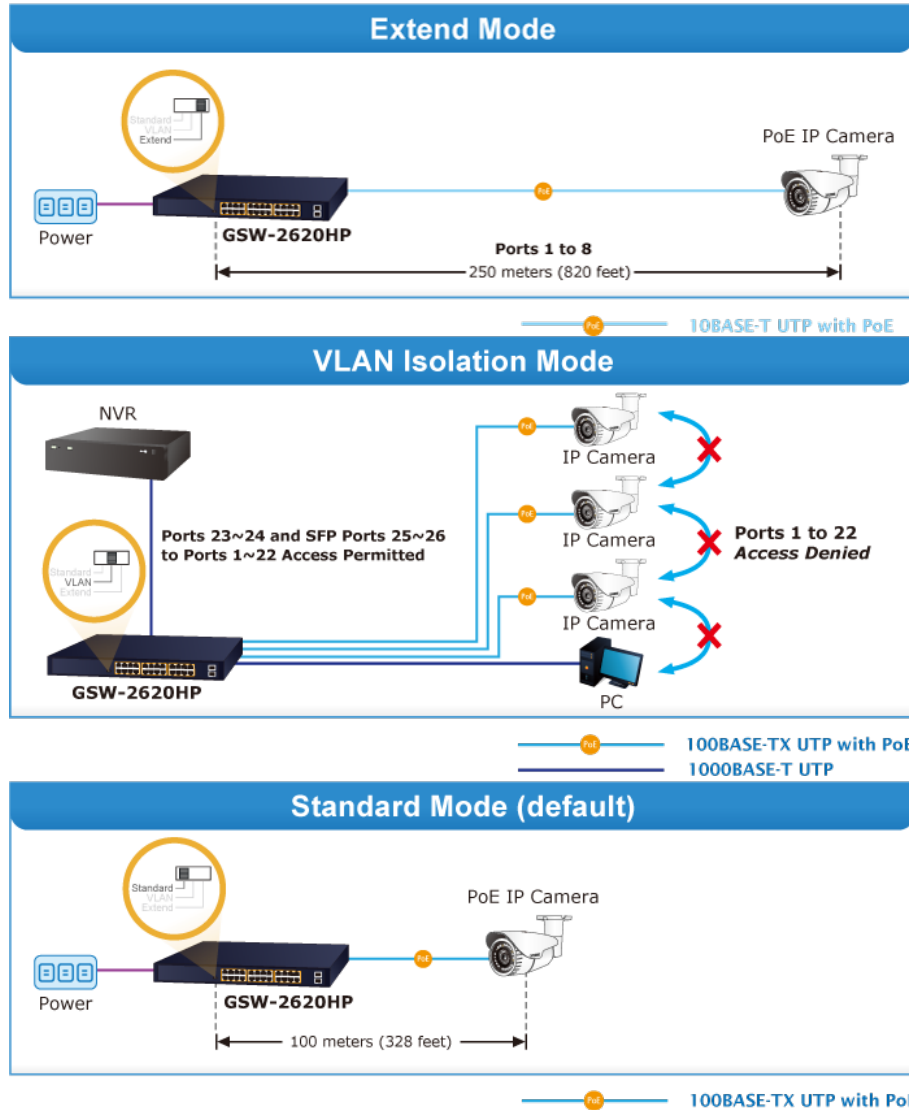


Ethernet Data Transmission Distance Extension

The DIP switch provides “Standard”, “VLAN” and “Extend” operation modes. The GSW-2620HP operates as a normal IEEE 802.3at PoE+ switch in the “Standard” operation mode.

The “VLAN” operation mode features with port-based VLAN function that helps to prevent the IP camera’s multicast or broadcast storm from influencing each other.

In the “Extend” operation mode, the GSW-2620HP operates on a per-port basis at 10Mbps duplex operation but supports 30-watt PoE power output over a distance of up to 250 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the GSW-2620HP provides an additional solution for 802.3at PoE+ distance extension, thus saving the cost of Ethernet cable installation.



Energy-saving Design

The GSW-2620HP uses new engine that incorporates two advanced Green Networking technologies:

- Idle Mode Link Down power savings
- Intelligent use of power based on cable length

The Idle Mode Link Down power savings of the GSW-2620HP complies with IEEE 802.3az Energy Efficient Ethernet (EEE) standard to automatically lower power for a given port when it is not linked. The Intelligent use of power feature actively determines the appropriate power level based on the cable length. When connecting to the GSW-2620HP with Ethernet cable shorter than 20m, a device can obtain maximum power savings because the GSW-2620HP would automatically detect the Ethernet cable length and reduce power usage. The connected device can substantially reduce the overall power consumption, which makes a significant contribution to energy savings.

Easy Installation and Cable Connection

Providing data transfer and high PoE in one unit, the GSW-2620HP is able to reduce the need of extended cables and electrical outlets on the wall, ceiling or any unreachable place. It helps to lower the installation costs and simplify the installation effort. All

RJ45 copper interfaces of the GSW-2620HP support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 Category 6, 5 or 5e cables. It also supports standard auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight-through or crossover cables.

Flexible Extension Solution

The two mini-GBIC slots built in the GSW-2620HP are compatible with the 1000BASE-SX/LX SFP (Small Form-factor Pluggable) fiber transceiver, uplinked to backbone switch and monitoring center in long distance. The distance can be extended from 550 meters (multi-mode fiber) to 10/20/30/40/50/60/70/120 kilometers (single-mode fiber or WDM fiber). They are well suited for applications within the enterprise data centers and distributions.

2. PRODUCT FEATURES

▶ Physical Port

- 24-port 10/100/1000BASE-T Gigabit RJ45 copper with 802.3at PoE+ injector function
- 2 1000BASE-X mini-GBIC/SFP slots

▶ Power over Ethernet

- Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- Up to 24 ports of IEEE 802.3af/802.3at devices powered
- Supports PoE power up to 30.8 watts for each PoE port
- Each port supports 52V DC power to PoE powered device
- 240-watt PoE budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

▶ Switching

- Hardware-based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- Integrates address look-up engine, supporting 8K absolute MAC addresses
- 9K jumbo frame supports all speeds (10/100/1000Mbps)
- IEEE 802.1Q VLAN transparency
- Hardware-based DIP switch for **Standard**, **VLAN** and **Extend** mode selection;
 - **VLAN mode**: Ports 1 to 22 cannot communicate with each other, but can communicate with the uplink ports 23 to 24 and SFP1 to SFP2
 - **Extend mode**: Ports 1 to 8 have a data rate of 10Mbps; the farthest transmission distance up to 250 meters and all ports can communicate with each other.
- The DIP switch can isolate ports to prevent broadcast storm and defend DHCP spoofing
- Automatic address learning and address aging
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

▶ Hardware

- 19-inch desktop size, 1U height
- LED indicators for PoE ready and PoE activity
- Ethernet Link Energy-saving technology
 - Link down power savings
 - Intelligent use of power based on cable length

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

| | |
|------------------------------|--|
| Switch ASIC: | Realtek RTL8382L x 1 |
| Gigabit Ethernet PHY: | Realtek RTL8218B x 2 |
| PoE Control | IC Plus IP808 x 3 |
| Power Supply Unit | Gospell G0591-26012510F x 1. 54V/4.5A+12V/1.8A (260 watts) |

3.2 FUNCTION SPECIFICATIONS

| | |
|---|--|
| Model | GSW-2620HP |
| Hardware Specifications | |
| 10/100/1000BASE-T Copper Ports | 24 auto-MDI/MDI-X ports |
| 802.3af/802.3at PoE+ Injector Port | 24 |
| 1000BASE-X SFP/mini-GBIC Slots | 2 |
| DIP Switch | Selectable operation mode <ul style="list-style-type: none"> ■ Standard ■ VLAN ■ Extend |
| Dimensions (W x D x H) | 440 x 208 x 44 mm (1U height) |
| Enclosure | Metal |
| Weight | 2.78kg |
| Power Requirements | 100~240V AC, 50/60Hz, 5A max. |
| Power Consumption/Dissipation | Max. 275 watts/939 BTU |
| Thermal Fan | 2 |
| Protection | 6KV surge protection 8KV ESD protection |
| LED | System: Power (Green) 10/100/1000T RJ45 Interfaces 1000 LNK / ACT (Green), 10/100 LNK/ACT (Amber), PoE (Amber) 1000X SFP Interfaces 1000 LNK / ACT (Green) |
| Switching | |
| Switch Architecture | Store-and-Forward |
| Switch Fabric | 52Gbps/non-blocking |
| Switch Throughput@64bytes | 38.7Mpps |

| | |
|--------------------------|--|
| MAC Address Table | 8K entries |
| Jumbo Frame | 9216 bytes |
| Flow Control | IEEE 802.3x pause frame for full duplex; back pressure for half duplex |

| Power over Ethernet | |
|----------------------------------|--|
| PoE Standard | IEEE 802.3at Power over Ethernet Plus/PSE Backward compatible with IEEE 802.3af Power over Ethernet |
| PoE Power Supply Type | End-span: 1/2 (+), 3/6 (-) |
| PoE Power Output | Per port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 52V DC, 600mA. max. 30 watts (IEEE 802.3at) |
| PoE Power Budget | 240 watts |
| Number of PDs, 7 watts | 24 |
| Number of PDs, 15.4 watts | 15 |
| Number of PDs, 30 watts | 8 |
| Standards Conformance | |
| Regulatory Compliance | FCC Part 15 Class A, CE |
| Standards Compliance | IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3ab Gigabit 1000BASE-T IEEE 802.3z Gigabit SX/LX IEEE 802.3x flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy-Efficient Ethernet |
| Environment | |
| Operating | Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing) |
| Storage | Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing) |

3.3 PHYSICAL SPECIFICATIONS:

■ **Dimensions:**

440 x 208 x 44 mm (W x D x H, 1U height)

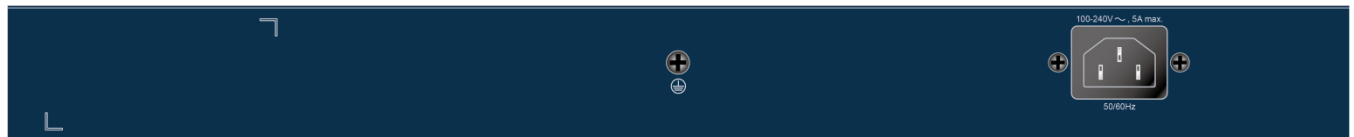
■ **Weight:**

2.78kg

■ **Front Panel:**



■ **Rear Panel:**



■ **LED Definition**

■ **System**

| LED | Color | Function |
|-----|-------|--|
| PWR | Green | Lights to indicate the Switch has power. |

■ **Per 10/100/1000BASE-T Port**

| LED | Color | Function |
|----------------|-------|--|
| 1000 LNK/ACT | Green | Lights to indicate the link through that port is successfully established at 1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port. |
| 10/100 LNK/ACT | Amber | Lights to indicate the link through that port is successfully established at 10/100Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port. |
| PoE in Use | Amber | Lights to indicate the port is providing 52V DC in-line power. |

■ **Per 1000BASE-X SFP Interface**

| LED | Color | Function |
|--------------|-------|--|
| 1000 LNK/ACT | Green | Lights to indicate the link through that port is successfully established at 1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port. |

3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: 0°C ~ 50 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -10°C ~ 70 degrees C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATIONS

| | | |
|----------------------------|---------------------------------|---------|
| Input Voltage: | 100~240V AC, 50/60Hz, 5A (max.) | |
| Power Consumption | 110V: 18.9 watts | 64.5BTU |
| (System on): | 230V: 19 watts | 65BTU |
| Power Consumption | 110V: 269 watts * | 918BTU |
| (PoE Full Loading): | 230V: 275 watts * | 939BTU |

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- The GSW-2620HP x 1
- User's Manual x 1
- Power Cord x 1
- Rubber Feet x 4
- SFP Dust Cap x 2
- Rack-mount Brackets Kit x 1
- Screws x 8

3.9 PACKING INFORMATION

| | |
|---------------------------------------|--------------------|
| Box Dimensions (W x D x H): | 555 x 295 x 88 mm |
| Gross Weight: | 4.18kg |
| Carton Dimensions (W x D x H): | 572 x 370 x 315 mm |
| Total Weight: | 18.6kg |
| Quantity: | 4pcs per carton |