

Product Specifications

8-Port 10/100/1000T 802.3at PoE + 1-Port Gigabit Desktop Switch

GSD-908HP

Version 3.0

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Change History:

Revision:	Date:	Author:	Change List
Version 3.0	2019/3/5	Marc Liao	Initial Release - New Hardware Designed.
Version 2.0	2017/1/10	Marc Liao	Power Adapter Replacement Change DC 51V 2.5A to DC 51V 2A. Change DC jack dimension from 2.5mm to 2.1mm.
Version 1.0	2014/6/30	Marc Liao	Initial Release

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1. PRODUCT DESCRIPTION



Centralized Power Distribution for Ethernet Networking

PLANET GSD-908HP **8-port 10/100/1000T 802.3at Power over Ethernet Plus + 1-port 10/100/1000T Desktop Switch** comes with a total PoE budget of 100 watts, which is an ideal solution to fulfill the demand of network applications with Gigabit Ethernet speed transmission for more PoE power. Its eight 802.3af/802.3at PoE+ Gigabit ports provide PoE power injector function which is able to drive 6 IEEE 802.3af compliant powered devices or 3 IEEE 802.3at compliant powered devices. The GSD-908HP also provides a simple, cost-effective and non-blocking Gigabit wire-speed performance. It comes with a compact metal housing, suitable for desktop deployment in SOHO office or department network application.

Perfectly Integrated Solution for PoE IP Camera and NVR System

Different from the general PoE Switch which usually comes with 12 or 24 PoE ports, the GSD-908HP provides eight 802.3af/802.3at PoE+ Gigabit ports for catering to small-scale IP surveillance networks at a lower total cost. The GSD-908HP comes with a high-performance switch architecture and 100-watt PoE power budget. The recorded video files from 8 PoE IP cameras can be powered by the GSD-908HP and saved in the 8-channel NVR system or surveillance software to perform comprehensive security monitoring. For instance, one GSD-908HP can be combined with one 8-channel NVR and 8 PoE IP cameras as a kit for the administrators to centrally and efficiently manage the surveillance system in the local LAN and the remote site via Internet.

Innovative Port-based VLAN Isolated Feature

The GSD-908HP features “VLAN” function whose ports can be isolated from each other via one DIP switch. This can help to prevent the IP camera’s multicast or broadcast storm from influencing each other.

Stable and High Performance Switch Architecture

The GSD-908HP has a 4K MAC address table and provides the non-blocking 18Gbps switch fabric and wire-speed throughput as high as 13.3Mpps, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands. Besides, the 802.3x full-duplex flow control function of the GSD-908HP enables PD devices and servers to be directly connected to the switch for wire-speed packet transfer performance without the risk of packet loss.

Easy Cable Connection

With data and power over Ethernet from one unit, the GSD-908HP reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. Providing eight 802.3af/802.3at PoE+ interfaces, the GSD-908HP is ideal for small businesses and workgroups requiring the PoE deployment of wireless access points, IP-based surveillance cameras or IP phones in any places with ease, efficiency and cost-effectiveness.

2. PRODUCT FEATURES

▶ **Physical Port**

- 9-port 10/100/1000BASE-T Gigabit RJ45 copper

▶ **Power over Ethernet**

- Complies with IEEE 802.3at Power over Ethernet Plus
- Complies with IEEE 802.3af Power over Ethernet
- Up to 8 ports of IEEE 802.3af/802.3at devices powered
- Supports PoE Power up to 30.8 watts for each PoE port
- Each port supports 55V DC power to PoE powered device
- 100-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 4K absolute MAC addresses
- 9K jumbo frame supports all speeds (10/100/1000Mbps)
- IEEE 802.1Q VLAN transparency
- Automatic address learning and address aging
- Solid DIP switch to isolate ports to prevent broadcast storm and defend DHCP spoofing

▶ **Hardware**

- Made of metal, desktop size and wall-mount design
- LED indicators for system power, per port PoE-in-Use (Port 1 to port 8), per port Link/Act (10/100/1000Mbps, port 1 to port 9).
- 55V DC, 2A external power adapter
- FCC, CE Class A compliant

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

Switch ASIC: Realtek RTL8370 x 1

PoE Controller: Texas Instruments TPS23861 x 2

3.2 FUNCTION SPECIFICATIONS

Model	GSD-908HP
Hardware Specifications	
10/100/1000BASE-T Copper Ports	9 auto-MDI/MDI-X ports
802.3af/802.3at PoE+ Injector Port	8
Switch Architecture	Store-and-Forward
Switch Fabric	18Gbps/non-blocking
Switch Throughput@64bytes	13.3Mpps
MAC Address Table	4K entries
Jumbo Frame	9216 bytes
Flow Control	IEEE 802.3x pause frame for full duplex; back pressure for half duplex
LED	System: Power (Amber) 10/100/1000T RJ45 Interfaces PoE-in-Use (Amber) 10/100/1000 LNK / ACT (Green),
DIP Switch	<ul style="list-style-type: none"> ■ Default mode for switch architecture ■ VLAN mode for Port-based VLAN
Enclosure	Metal
Weight	419g
Power Requirements	55V DC, 2A
Power Consumption/Dissipation	Max. 100 watts / 341BTU
Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	End-span: 1/2 (+), 3/6 (-)
PoE Power Output	Per port 55V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 55V DC, 600mA. max. 30 watts (IEEE 802.3at)
PoE Power Budget	100 watts
Number of PDs, 7 watts	8
Number of PDs, 15.4 watts	6
Number of PDs, 30 watts	3
Standards Conformance	
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX

	<p>IEEE 802.3ab Gigabit 1000BASE-T</p> <p>IEEE 802.3x flow control and back pressure</p> <p>IEEE 802.3af Power over Ethernet</p> <p>IEEE 802.3at Power over Ethernet Plus</p>
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3.3 PHYSICAL SPECIFICATIONS:

■ **Dimensions:**

168 x 94 x 32 mm (W x D x H)

■ **Weight:**

419g

■ **Front Panel:**



■ **Rear Panel:**



■ **LED Definition**

■ **System**

LED	Color	Function
PWR	Amber	Lights to indicate the Switch has power.

■ **Per 10/100/1000BASE-T Port**

LED	Color	Function
PoE in Use	Amber	Lights to indicate the port is providing 55V DC in-line power.
10/100/1000 LNK/ACT	Green	Lights to indicate the link through that port is successfully established at 10/10/1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.

■ DIP Switch

The front panel of 802.3at PoE+ Switch provides one DIP switch for “Default” or “VLAN” mode selection. The detailed descriptions are shown in the following table.

DIP Switch Mode	Function
Default	This mode makes the 802.3at PoE+ Switch operate as a general switch and all ports operate at 10/100/1000Mbps auto-negotiation.
VLAN	This mode makes the 802.3at PoE+ Switch operate as a VLAN isolation switch and port 1 to port 8 will isolate respectively. Port 1 to port 8 can only communicate with port 9 (uplink port).



After changing the mode, you need to manually restart the 802.3at PoE+ Switch to make the corresponding configuration take effect.

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 SPECIFICATION

Input Voltage:	DC 55V, 2A max.	
Power Consumption (System on):	110V/60Hz: 5 watts	17BTU
	220V/50Hz: 5 watts	17BTU
Power Consumption (Ethernet Full Loading):	110V/60Hz: 8 watts	27BTU
	220V/50Hz: 6 watts	20BTU
Power Consumption (PoE Full Loading):	110V/60Hz: 121watts*	412BTU
	220V/50Hz: 119watts*	406BTU

* With a total PoE power output limited at 100 watts

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSD-908HP x 1
- User's Manual x 1
- External AC to DC Adapter x 1
- Power Cord x 1
- Rubber Feet x 4

3.9 PACKING INFORMATION

Box Dimensions (W x D x H):	240 x 228 x 84 mm
Weight:	1.47 kg
Carton Dimensions (W x D x H):	446 x 254 x 486 mm
Carton Weight:	15.5 kg
Quantity:	10pcs in one carton