深圳市拓视盾科技有限公司
Shenzhen Tstone Technology Co. ,Ltd

SPECIFICATION FOR APPROVAL

CUSTOMER :

PRODUCT NAME : 4-Port Super-power Gigabit PoE Switch

PRODUCT MODEL: TSD-PSE0401G1S

BRAND : TST (OEM/ODM)

DATE : 2024 / 06 / 26

DRAWING			CUSTOMER APPROVE
DESIGNED	CHECKED	APPROVED	
VANNE	YOUTRONG	Mark	
DATE	2024 / 06 / 26		Please return the visa after confirmation, thank you!

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PRODUCT: 4-Port Super-power Gigabit PoE Switch

MODEL: TSD-PSE0401G1S

What Is PoE

PoE (Power over Ethernet) refers to the technology that can transmit data signals for some IP-based terminals (such as IP phones, wireless LAN access point APs, IP cameras, etc.) without any changes to the existing Ethernet Cat.5 cabling infrastructure, and can also provide DC power supply for such devices.

A complete PoE system consists of two parts: Power Sourcing Equipment (PSE) and Powered Device (PD). The PSE device is the device that powers the Ethernet client device and is also the manager of the entire PoE (Power-over-Ethernet) process. The PD device is the PSE load that receives the power supply, that is, the client device of the PoE system. Based on the IEEE 802.3af/at standard, the two establish information about the connection status, device type, power consumption level and other aspects of the PD of the power receiving device, and use this as the basis for PSE to supply power to the PD through Ethernet.

The Principle of PoE

The standard Category 5 cable has four twisted pairs, but only two pairs are used in l0M BASE-T and 100M BASE-T. IEEE80 2.3af/at allows two uses: (1) When the idle pin is used for power supply, pin

s 4 and 5 are connected as the positive pole, and pins 7 and 8 are connected as the negative pole. (2) P in 1 and pin 2 are connected as the positive pole, and pin 3 and 6 are connected as the negative pole.

The Advantages of PoE

1. Save labor and material costs. Compared with the traditional wiring method of weak current engineerin g, PoE only needs to install a network cable to make the IP equipment work normally. In many cases, P oE is more advantageous in the places where it is difficult to deploy AC power. As the number of netw ork devices in the system increases, the use of PoE eliminates the need for local power supply for the eq uipment, which will greatly reduce deployment costs and simplify their manageability.

2. Easy to install and manage. Customers can autonomously and securely mix PoE devices and legacy de vices within the system, and can coexist with existing Ethernet cables. PoE devices are compatible with t he management system of existing network devices and can share the management platform with existing network devices.

3. Good security. The Power Sourcing Equipment（PSE） in a PoE system will only supply power to the Powered Device （PD） that needs to be powered. Only when the Device that needs to be powered is co nnected and the protocol is successfully identified, the power supply equipment will have a voltage output and supply power to the powered device, thus eliminating the risk of leakage and short circuit on the li ne.

Product Introduction

The TSD-PSE0401G1S switch is a high-power PoE switch. It takes in 90-240V 50/60Hz AC power and outputs 4 channels of 52V PoE signals, with a maximum output power of 90W per channel.

The TSD-PSE0401G1S complies with the IEEE802.3af/at/bt PoE standard protocol. It supports fiber o ptic communication and has an adaptive transmission rate of 10/100/1000M. It can provide data transmissi on and power supply for IP devices such as high-speed dome cameras, high-power bridges, large-scale au dio systems, and high-power Wi-Fi.

Product Description

Input and output configuration of TSD-PSE0401G1S:

Triangular plug interface: AC input port, accepting 90~240V 50/60Hz AC power

RJ45 ports 1-4: Gigabit PoE ports, outputting 52V PoE signal

RJ45 port 5: Gigabit uplink port, for data transmission

SC optical fiber interface: Gigabit SFP optical port, for optical fiber communication

Size structure: 197*166*43 mm (L*W*H), product weight: 1kg, color and material: matte black metal casing. Product appearance: rectangular structure, with 5 RJ45 network ports, 1 SC optical fiber interface, PWR indicator light, SFP optical port indicator light, and Reset indicator light on the front; a three-pronged AC power input socket on the back; heat dissipation grilles on both sides of the product, which helps the device to dissipate heat quickly.

The TSD-PSE0401G1S switch is equipped with a built-in power supply of 52V 6A 300W, a backplane bandwidth of 20G, and adaptive transmission rates of 10/100/1000M. It accepts an input AC voltage of 90~240V 50/60Hz and outputs a 52V PoE signal. The product features overheat protection, overvoltage protection, over-current protection, short circuit protection, electric shock protection, and leakage protection, among other functions.

The TSD-PSE0401G1S complies with the international standard protocols of IEEE802.3af/at/bt PoE, and its EMC parameters meet the requirements of IEC 61000-4-2/3/4/5/6 standards. It has obtained certifications such as CE, FCC, and RoHS. The product features practical and rich functions, and is widely applied. It can support multiple high-power devices to work simultaneously, and has received unanimous praise from users.

Product Features

- Input: AC 90-240V, 50/60Hz
- Output: 52V PoE signal
- IEEE 802.3af/at/bt PoE international standard protocol
- Complies with IEC 61000-4-2/3/4/5/6 standards for EMC

- CE, FCC, RoHS certifications
- Supply pin positions: RJ12+, RJ36-, RJ45+, RJ78- fully compatible
- Maximum output power of a single port: 90W
- Backplane bandwidth: 20G
- Internal power supply: 52V, 6A, 300W
- 10/100/1000M adaptive transmission rate
- Overheat protection, short circuit protection, overvoltage protection, overload protection, electric shock protection, leakage protection
- Gigabit high-power network filter
- High-frequency low-resistance electrolytic capacitor, reduces circuit high-frequency loss and heat generation
- SMD solid-state capacitor, long service life to enhance module power supply stability
- Original electronic components from international brands, high precision and high performance
- High-power high-conduction low-impedance transistor, excellent reliability and temperature tolerance
- Eco-friendly high-temperature PCB material, eco-friendly lead-free process
- Pure copper pin connectors to ensure stable contact
- Temperature-resistant flame-retardant sockets to reduce safety hazards

Specifications

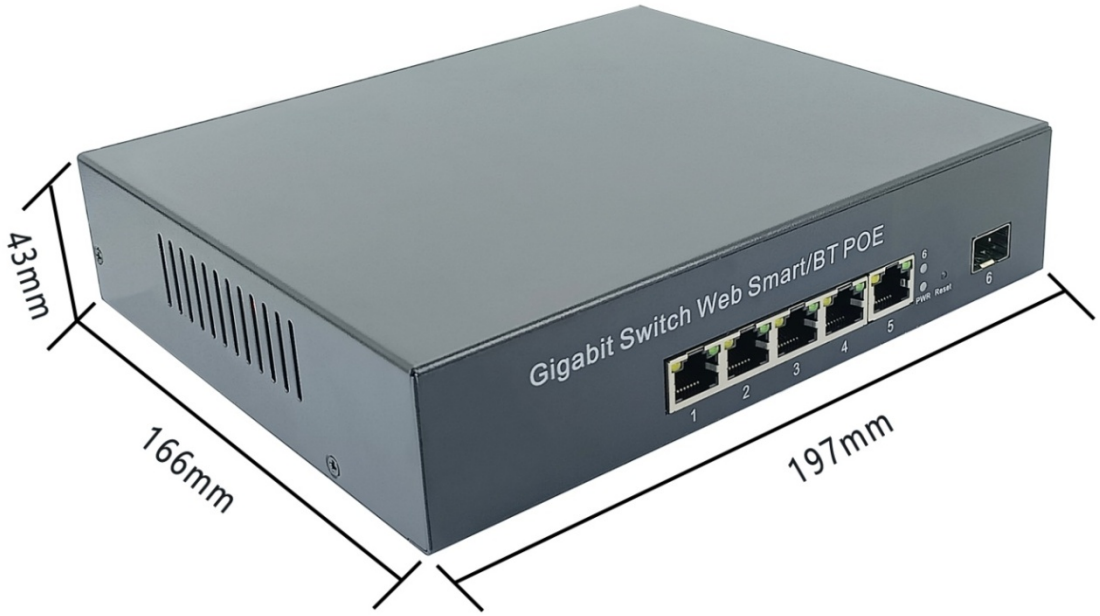
Product parameter table	
Product Name	4 Port Super-power Gigabit PoE Switch
Product Model	TSD-PSE0401G1S
PoE Standard	IEEE.802.3af/at/bt
Input Voltage	AC 90~240V50/60HZ
Output	PoE 52V
Built - in power supply	52V 6A 300W
Conversion Efficiency	≧90%
PoE Pin	PoE: RJ12+，RJ36-，RJ45+，RJ78- full power supply

Conversion Mode	/
Data Rate	10/100/1000M
Transmission Distance	100 meters(Category 5e Cable (Cat5e))
Surge Protection	4KV
Circuit Protection	Overheat protection, overvoltage protection Over-current protection, short circuit protection Electric shock protection, leakage protection
LED Indicator	Power indicator LED* 1 Optical port indicator LED * 1 Reset function indicator LED * 1
Interface	AC input port (Triangular Connector) : AC 90~240V 50/60HZ IN RJ45 network ports 1-4 (Gigabit PoE ports): Output 52V PoE signal RJ45 network port 5 (Gigabit uplink port): Data transmission SC optical interface (Gigabit SFP optical port): Optical communication
Function	/
Material	Hard metal materials
Color	Matte black
Accessories	1 m (10A 250V) power cord, user manual
EMC	IEC 61000-4-2/3/4/5/6
Temperature	-20 ~ 60℃ For Operating -30 ~ 80℃ For Storage
Humidity	RH95% MAX (Non-condensation)
Weight	N.W：1Kg
Dimension	197*166*43 mm (L*W*H)
Package	Kraft cartons (250*210*50mm L*W*H)

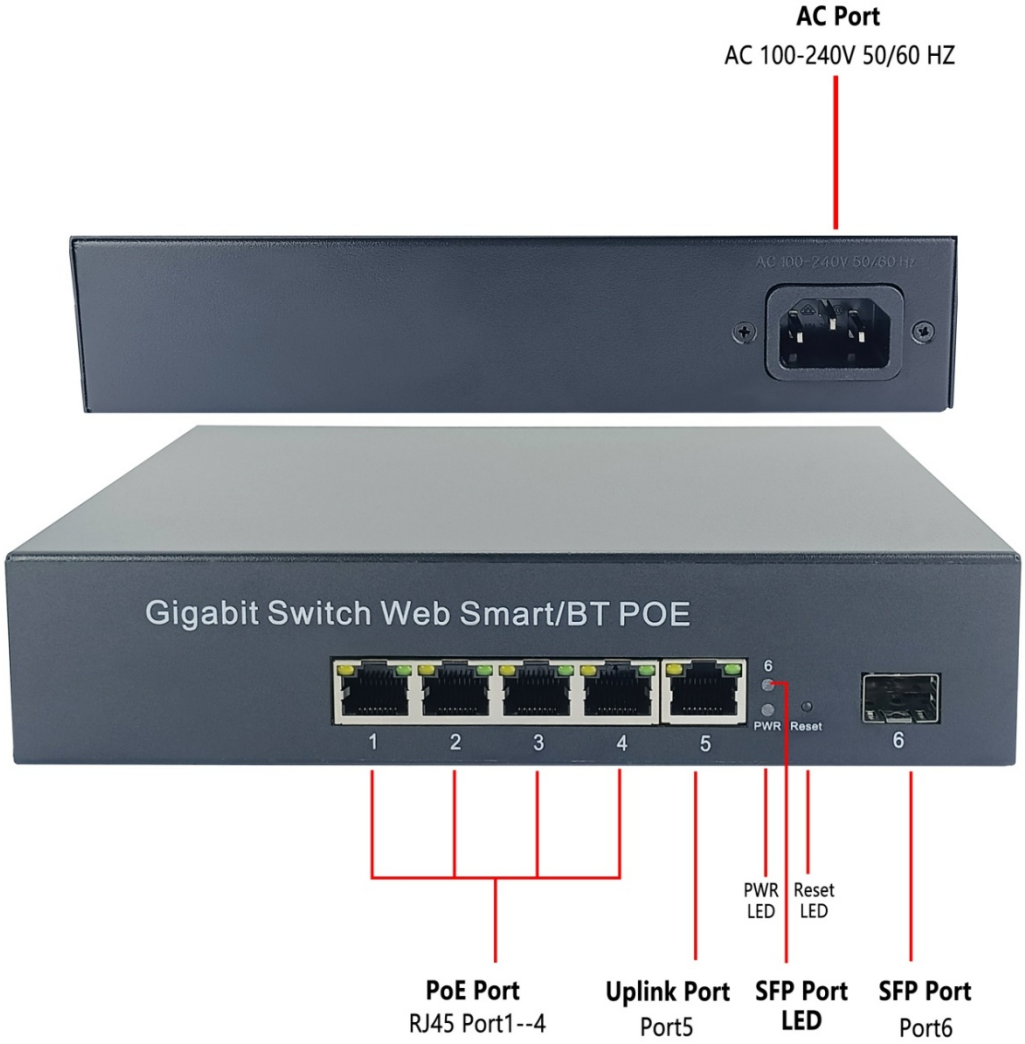
Product Applications

The TSD-PSE0401G1S PoE switch is mainly used in devices such as IPC, Wi-Fi, high-power bridges and large audio systems. The maximum output power of a single port is 90W, which can provide network transmission and DC power supply for high-power devices. The product has 4 PoE signal output ports, one gigabit uplink port and one SFP optical port. It can transmit data with the superior device while connecting optical fibers to achieve long-distance communication. The product is of high quality, safe performance, and comprehensive functions, making it a reliable choice for users.

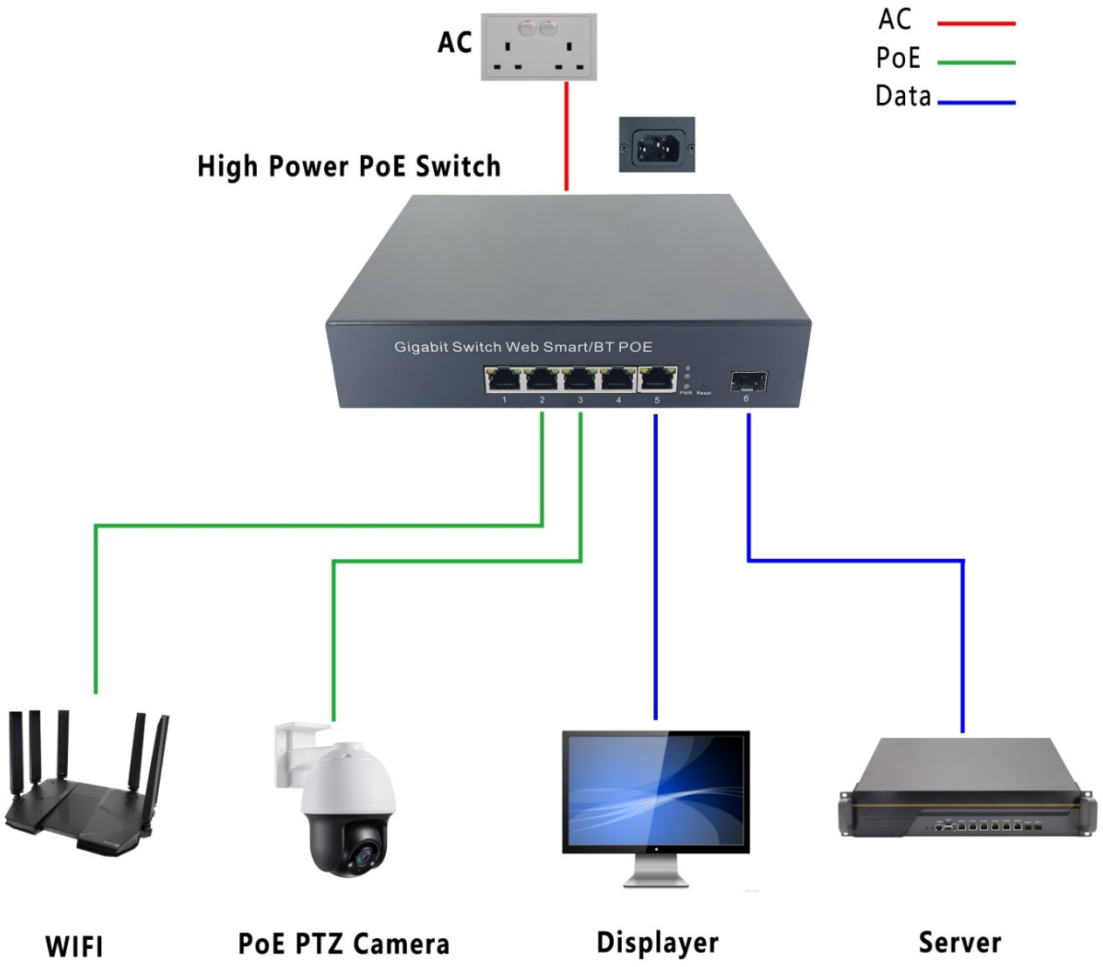
Dimensions


43mm
166mm
197mm
Gigabit Switch Web Smart/BT POE
1
2
3
4
5
6
PWR
Reset
6

Interface Definition



Topology Diagram for Product Installation and Application



Application Scenarios

<table>
<tr><td rowspan="2">  </td><td>  </td></tr>
<tr><td>Outdoor bridge</td></tr>
<tr><td>PTZ Speed Dome Camera</td><td> 
Lawn speaker</td></tr>
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Product Detail

Product Package

Package Size: 25*21*5 cm (L*W*H)

MPQ: 1 PCS

N.W: 1 KG

G.W: 1.2 KG

Packing List	
Item	**Number**
TSD-PSE0401G1S	1
AC power cord	1
Operation manual	1