SPECIFICATION FOR APPROVAL

CUSTOMER : _____

PRODUCT NAME : 25W Gigabit desktop POE Power Supply (European standard)

PRODUCT MODEL : PSE48LG

BRAND : TST（OEM/ODM）

DATE : 2024 / 06 / 24

DRAWING			CUSTOMER APPROVE
DESIGNED	CHECKED	APPROVED	
VANNE	YOUTRONG	Mark	
DATE	2024 / 06 / 24		Please return the visa after confirmation, thank you!

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PRODUCT: 25W Gigabit Desktop POE Power Supply

MODEL: PSE48LG

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 e quipment, 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 th e Powered Device （PD） that needs to be powered. Only when the Device that needs to be powered is connected and the protocol is successfully identified, the power supply equipment will have a voltage outp ut and supply power to the powered device, thus eliminating the risk of leakage and short circuit on the line.

Product Introduction

PSE48LG is a gigabit desktop POE Power Supply , also known as Passive POE Injector. It is a plu g and play product, with an AC power cord and AC Europlug. Simply plug it into an AC power outlet and it will work normally.

PSE48LG is a single-port POE injector, which can output a POE signal to a single PD(Powered Dev ice) device, transmit data and instructions for it. In places where the PD devices is very scattered or ther e are few PD devices, if the POE switch is used as the PSE(Power Sourcing Equipment) device, the wiri ng will be troublesome and waste costs. In this case, it is more convenient to use a single-port POE inje

ctor to supply power. For the situation that there is only one PD device in one place, using a single-port POE injector not only easily solves the power supply problem, but also saves costs.

Product Description

PSE48LG is a power supply product that outputs POE signals. It has a POE port, a LAN port, and a power interface. The POE port can output 25W POE signals and can be directly connected to PD devices to power them and transmit data signals. The LAN port can be connected to a switch, router, or NVR. Through the LAN port, the PD devices connected can be accessed in the local area network, Ethernet, or NVR for data transmission and storage. The power interface can be connected to an AC 100-240V power outlet to provide working current for the POE power supply and output POE signals.

The size of the PSE48LG is small (L*W*H=90*50*30mm), which occupies less space and is more convenient to install. It has a 60cm length power cable that is more convenient to connect it to the AC power socket when installed, and the length of the power cable and the specification of the plug can be customized according to the customer's needs. There is a power indicator on the surface of the product, through which you can judge whether the product has entered the working state or whether the connection is good. The fine and smooth appearance design, high-temperature resistant and environmentally friendly ABS plastic material, make the product more beautiful and safe.

The gigabit transmission rate ensures faster data transmission without congestion. The POE port complies with the IEEE802.3af/at protocol, and the 25W full power can provide sufficient power supply for the connected PD devices. The power supply pin of POE is RJ45+ RJ78-, and other power supply pin standards can be customized according to customer's needs. Through the CAT5e network cable, the POE transmission distance can reach more than 100 meters.

The PSE48LG motherboard circuit design adopts isolated design, with lightning protection, short circuit protection, overload protection, overvoltage protection, overtemperature protection and other functions. The EMC parameters of the product meet the requirements of IEC 61000-4-2/3/4/5/6 standards.

Product Features

- IEEE802.3af/at POE protocol
- Wide input voltage AC100-240V 50/60HZ
- Output：48V0.5A 25W, other voltages can be customized
- 10M/100M/1000M adaptive transmission speed
- RJ45+ RJ78- Power supply pin
- Various specifications of AC power plugs can be customized
- Small desktop size, less space, easy to install
- 4KV surge protection
- With overheat protection, overvoltage protection, overload protection, short circuit protection
- The conversion efficiency is over 85%
- EMC complies with IEC 61000-4-2/3/4/5/6 standards
- Environmental and high temperature resistant ABC plastic material

Specifications

Items	Specifications
Product Name	25W Gigabit Desktop POE Power Supply
Product Model	PSE48LG
PoE Standard	IEEE802.3af/at
Input Voltage	AC100-240V 50/60HZ
Output	POE 48V0.52A 25W (Other Voltage can be customized)
Conversion Efficiency	≧85%
PoE Pin	RJ45+ RJ78-
Conversion Mode	Isolated
Data Rate	10M/100M/1000M Adaptive
Transmission Distance	100 meters
Surge Protection	4KV
Circuit Protection	Short-circuit Protection Overcurrent Protection Overvoltage Protection Overheating Protection
LED Indicator	1*Power Indicator
Interface	1*POE Port 1*LAN Port 1*AC Europlug

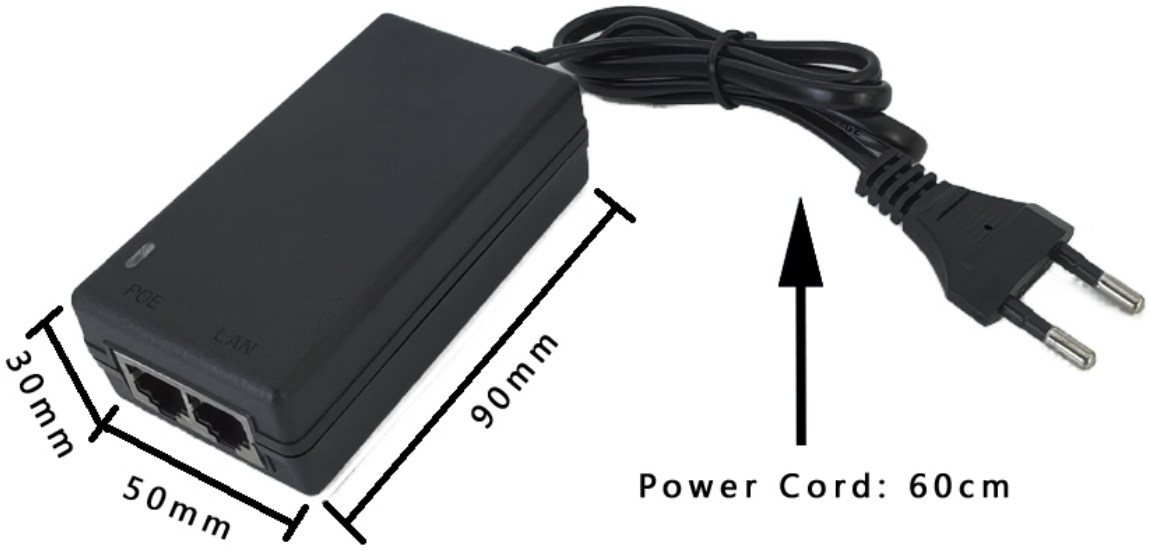
	(Other plugs can be customized)
Material	ABS Plastic
Color	Black
Accessories	NO
EMC	IEC 61000-4-2/3/4/5/6
Temperature	-20～60℃ For Operating -30～80℃ For Storage
Humidity	RH95% MAX (Non-condensation)
Weight	N.W: 113g G.W: 126G
Dimension	Product Dimension: 90*50*30mm+60cm(AC Power Cord) Packing Dimension: 115*54*62mm
Package	White Carton

Product Applications

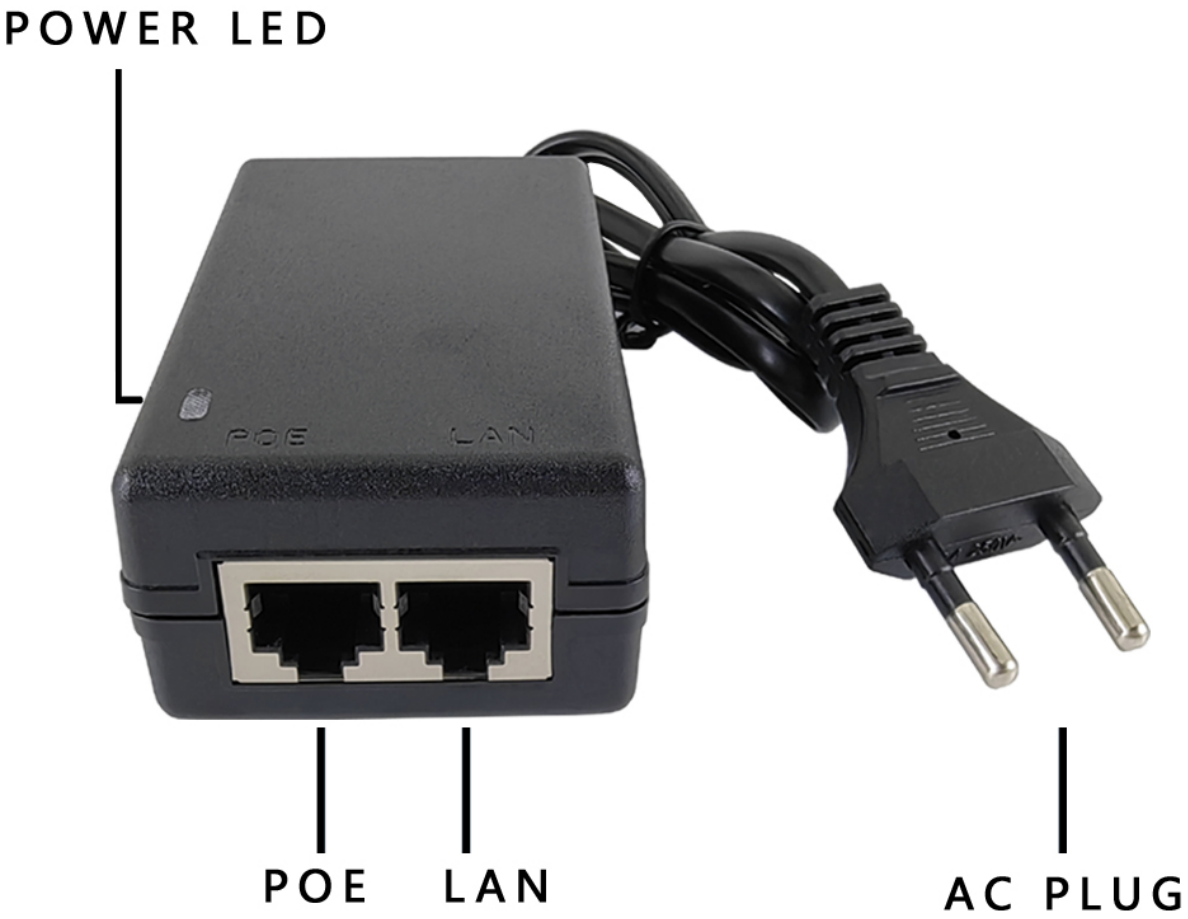
PSE48LG is widely used in CCTV, Wireless Transmission, Building Intercom, Smart Home and other fields to provide POE signals for POE devices, or for Non-POE devices through POE Splitter. It has changed the traditional power supply mode of weak current projects, saving labor and material costs, and improving the safety and stability of the entire system.

PSE48LG is a Passive POE Injector, the POE Port will force the output of 48V POE signal, so please do not directly connect the POE Port to non-POE equipment when installing and using. Be sure to connect the POE Port to the POE device or connect the non-POE device through POE splitters.

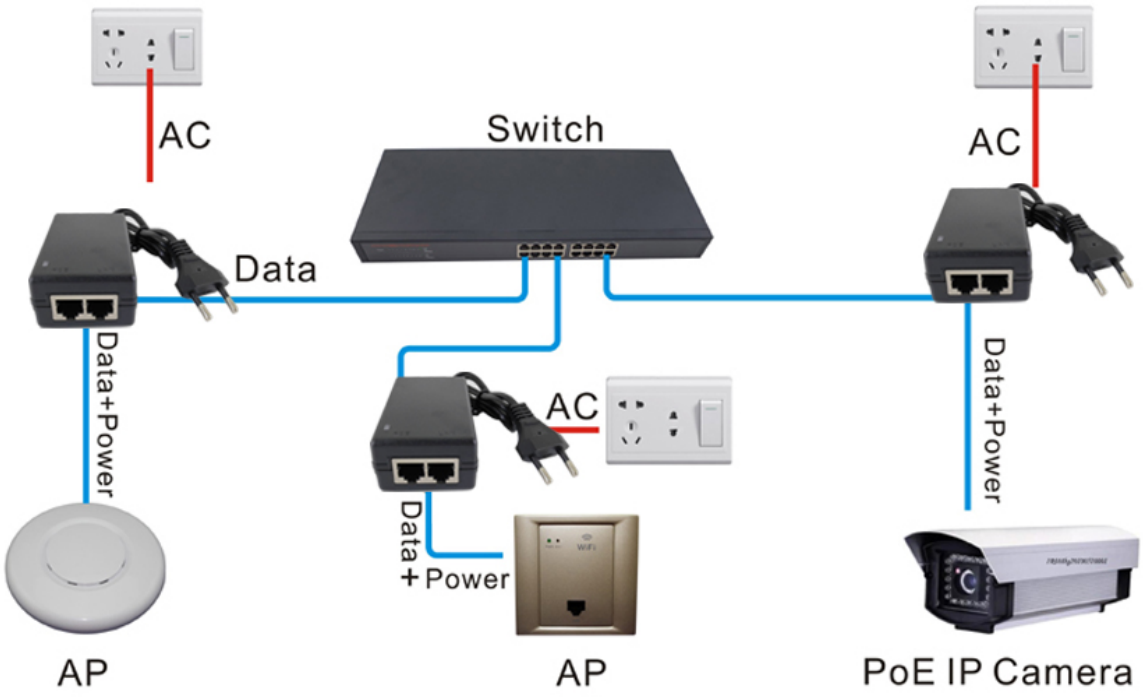
Dimensions



Interface Definition



Application topology



Application Scenarios

		
CCTV	WIFI & AP	Display

Product Detail

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Product Package

Package Size:115*54*62mm(L*W*H)

Package list	
Items	Quantity
PoE Power Supply	1
Operation Manual	1