SPECIFICATION FOR APPROVAL

CUSTOMER   :

PRODUCT NAME : 25W 10/100M Adaptive Split-type POE Power Supply

PRODUCT MODEL :   PSE48F

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!

PRODUCT: 25W 10/100M Adaptive Split-type POE Power Supply

MODEL: PSE48F

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, pins 4 and 5 are connected as the positive pole, and pins 7 and 8 are connected as the negative pole. (2) Pin 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 engineering, POE only needs to install a network cable to make the IP equipment work normally. In many cases, POE is more advantageous in the places where it is difficult to deploy AC power. As the number of network devices in the system increases, the use of POE eliminates the need for local power supply for the equipment, 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 devices within the system, and can coexist with existing Ethernet cables. PoE devices are compatible with the 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 connected 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 line.

Product Introduction

PSE48F is a 25W 10M/100M adaptive split-type POE power supply, also known as Passive POE Injector. It is a desktop power supply product with separate main body and AC tail cable, which needs to be plugged into the AC Power Socket through the AC tail cable when used, and is a plug-and-play product.

PSE48F is a single-port POE injector, which can output a POE signal to power a PD device and transmit data for it. In homes, small offices, or places where PD devices are scattered, and there is only on

e PD device, it will be a waste of cost if you choose a POE switch. At this time, it is ideal to choose a PSE48F Single-port PoE Injector to supply power and transmit data to your PD equipment.

Product Description

The PSE48F has a POE port, a LAN port, and a Torx AC Interface. The POE port is the POE output port, which can output one POE signal. The LAN port is an uplink port that can be connected to higher-level devices, such as switches, routers, NVRs, or network device management platforms. It can be connected to LAN or Ethernet through the LAN port.

PSE48F is a square desktop product, small size, beautiful appearance, very easy to install and lay out. It comes with a plum-shaped AC Interface, for users in different countries, only need to change the AC tail cord of different type to facilitate use. There is an LED power indicator on its surface, through which it is easy to judge its working status and whether the power connection is intact. The shell is made of environmentally friendly and high-temperature resistant ABS plastic. The color is matte black.

PSE48F can output 48V 0.52A POE signal (other voltages can also be customized according to customer needs), with a maximum power of 25W. The data transmission rate is 10M/100M self-adaptive, which can ensure smooth data transmission without blockage. POE power supply pins are RJ45+, RJ78- (other power supply pins can also be customized according to customer needs).

PSE48F's motherboard circuit design adopts an isolated design method, with its own lightning protection circuit, over-voltage protection circuit, over-current protection circuit, over-temperature protection circuit and short-circuit protection circuit. The EMC index can meet the requirements of IEC 61000-4-2/3/4/5/6. The products have passed CE, ROHS, FC and other safety standard certifications, and are widely used in various countries and industries around the world.

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 adaptive transmission speed

- RJ45+ RJ78- Power supply pin

- It comes with a plum-shaped AC socket, for users in different countries, only need to change the AC tail cord of different type to facilitate use.

- Small 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 10M/100M adaptive split-type POE Power Supply
Product Model	PSE48F
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 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

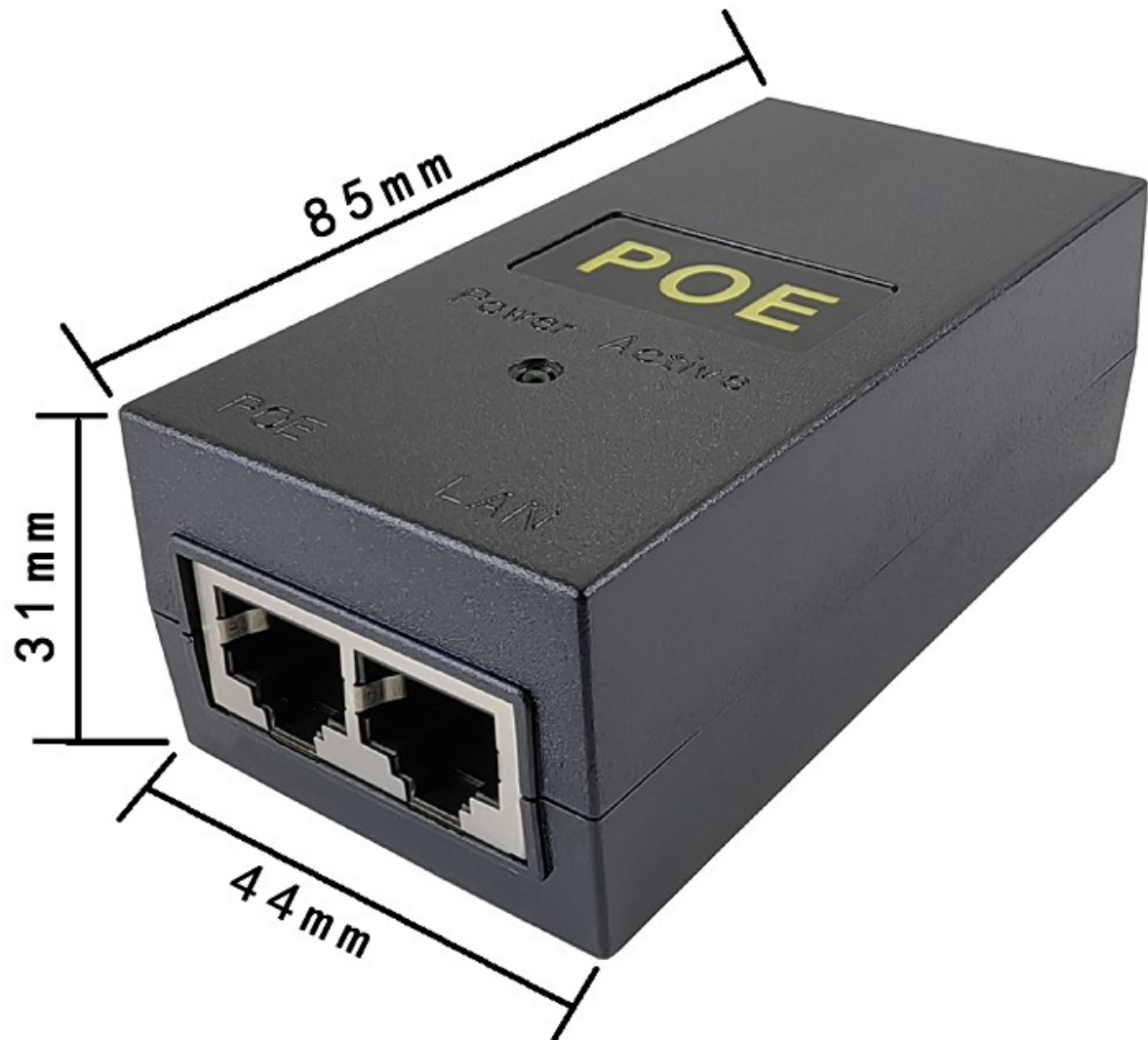|	1*LAN Port 1* Torx AC Interface
Material	ABS Plastic
Color	Black
Accessories	NO
EMC	IEC 61000-4-2/3/4/5/6
Temperature	-20～60℃ For Operating -30～80℃ For Storage
Humidity	RH95% MAX (Non-condensation)
Weight	N.W: 80g G.W: 195G
Dimension	Product Dimension: 85*44*31mm Packing Dimension: 160*82*40mm
Package	White Carton

Product Applications

PSE48F is widely used in CCTV, Wireless Transmission, 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.

PSE48F 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.
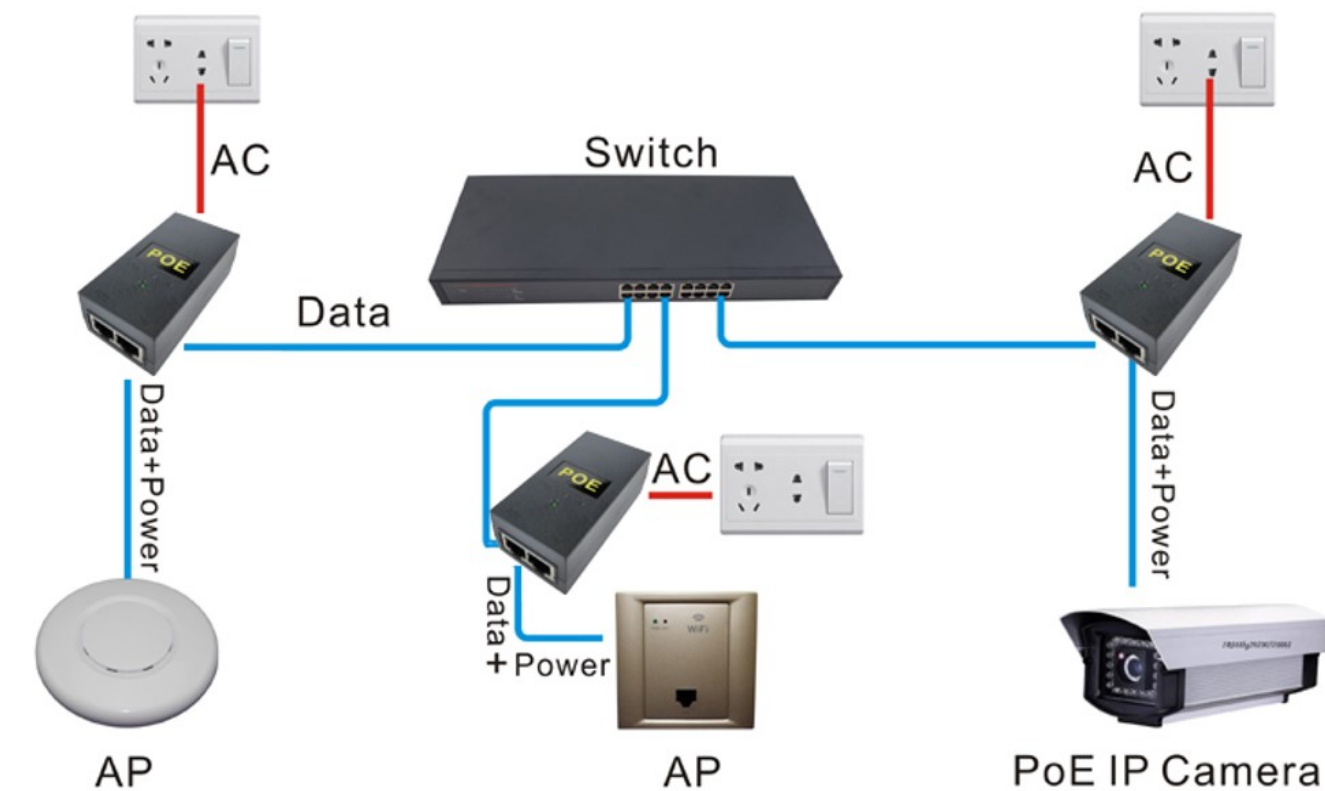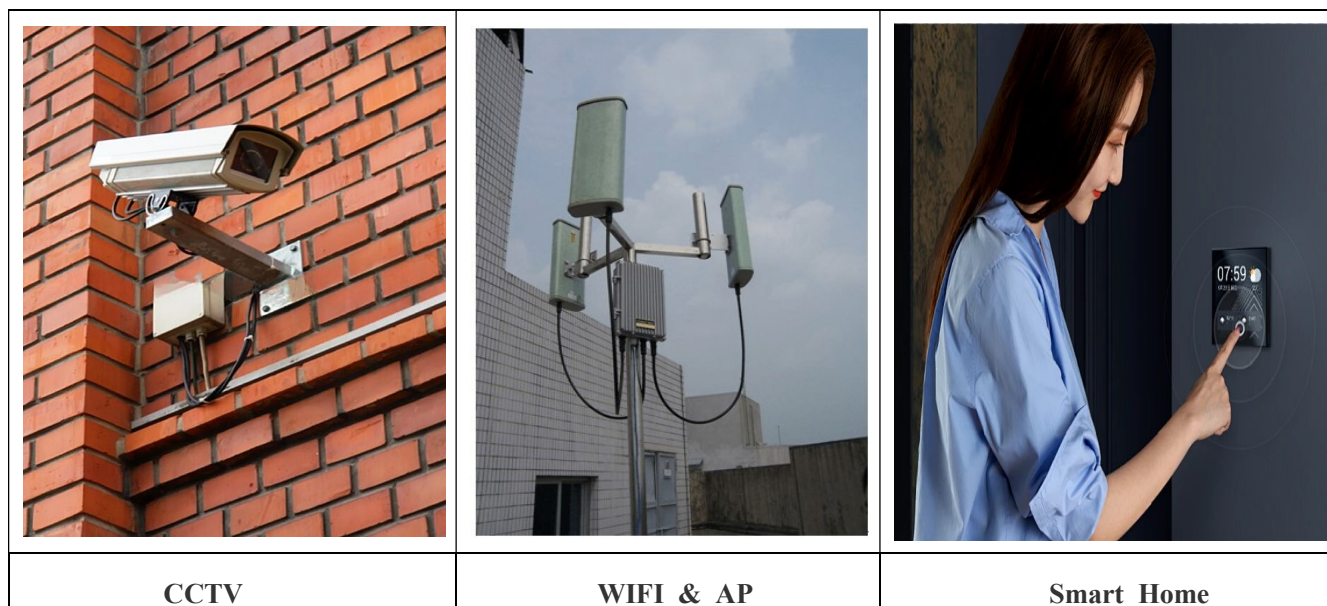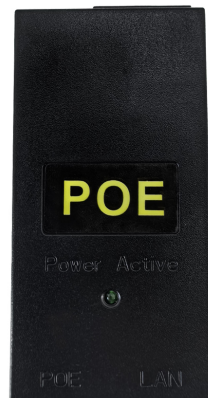
Dimensions

Interface Definition

Torx AC Interface

POE   LAN

Application topology

Application Scenarios

CCTV	**WIFI & AP**	**Smart Home**

Product Detail

Product Package

Package Size:160*82*40mm(L*W*H)

Package list	
Items	Quantity
PoE Power Supply	1
AC Cable	1
Operation Manual	1