



SPECIFICATION FOR APPROVAL

CUSTOMER : _____

PRODUCT NAME : 30W Gigabit DIN Rail PoE Injector

PRODUCT MODEL : PSE30G

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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MODEL: PSE30G



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 10M BASE-T and 100M BASE-T. IEEE802.3af/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) Pins 1 and 2 are connected as the positive pole, and pins 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

PSE30G is a 30W Gigabit DIN Rail POE Injector, also known as active POE Injector. It conforms to the IEEE802.3af/at POE international standard protocol and comes with handshake recognition function. It is a plug-and-play product.

PSE30G is a single-port POE injector, which can output a POE signal to provide POE power supply to a single PD device and transmit data for it. In places with only one PD device, the use of POE Inje



ctor not only saves installation space, but also saves material and labor costs, and it is the best choice for using POE Injector in homes or small offices.

Product Description

PSE30G has a P+D/OUT port and a Data/IN port at one end, and an AC port at the another end. The P+D/OUT port can be connected to the PD device and output POE signals to supply power to the PD device and transmit data for it. The Data/IN port can be connected to higher-level network management devices such as routers, switches, or servers. Through the Data/IN port, the PD device can be connected to the LAN or Ethernet. Connect the AC Port and AC socket with an AC cable, and the PSE30G will work normally after the power is turned on.

The PSE30G is a product with rails. It has rail structure on both sides, and it can be installed and fixed in the cabinet by the rails. The PSE30G has screw holes on the bottom, and it can also be fixed to the wall through the screw holes. At the same time, PSE30G is also a desktop product, and it can also be placed on the desktop. PSE30G has two LEDs on one end, red and green, the red LED is the power indicator, indicating the power connection status and the green LED is the POE indicator, which indicates the working status of the POE. PSE30G has heat dissipation grilles on both sides, through which the heat of the motherboard can be dissipated, reducing the temperature of the product and increasing the life of the product.

PSE30G complies with the IEEE802.3af/at POE international standard protocol and has a handshake recognition function. Only when the PSE30G is connected to the PD device and the handshake recognition is successful, it will provide power to the PD device connected, otherwise, the PSE30G will not provide power to any device. PSE30G's transmission rate is gigabit, its POE output power is 30 watts, the maximum output power is 40 watts, and its power supply pin is RJ1245+ RJ3678-, eight-line full power supply mode. The maximum transmission distance is 100 meters.

The motherboard of the PSE30G is an isolated design with a high-power isolation transformer. The motherboard has a built-in lightning protection circuit, short circuit protection circuit, overvoltage protection circuit, and the lightning protection level can reach 6KV. The input voltage of the motherboard adopts a wide voltage design, which is compatible with AC100-240V 50/60HZ. The EMC parameters can meet t



he requirements of IEC 61000-4-2/3/4/5/6 standards. The products have obtained CE, FC, Rohs and other certifications, and sell well in more than 100 countries and regions around the world.

Product Features

- IEEE802.3af/at POE international standard protocol and handshake recognition function
- Wide input voltage AC100-240V 50/60HZ
- Output: 48V0.65A 30W, other voltages can be customized
- 10M/100M/1000M adaptive transmission speed
- RJ1245+ RJ3678- Power supply pin
- Rail installation, wall mounting, desktop installation and other installation methods
- There are heat dissipation grids on both sides for easy heat dissipation
- Small size, less space, easy to install
- 6KV 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	30W Gigabit DIN Rail POE Injector
Product Model	PSE30G
PoE Standard	IEEE802.3af/at
Input Voltage	AC100-240V 50/60HZ
Output	POE 48V0.65A 30W (Other Voltage can be customized)
Conversion Efficiency	$\geq 85\%$
PoE Pin	RJ1245+ RJ3678-
Conversion Mode	Isolated



Data Rate	10M/100M/1000M Adaptive
Transmission Distance	100 meters
Surge Protection	6KV
Circuit Protection	Short-circuit Protection Overcurrent Protection Overvoltage Protection Overheating Protection
LED Indicator	1*Power Indicator 1*POE Indicator
Interface	1*P+D/OUT Port 1*Data/IN Port 1* AC Port
Material	ABS Plastic
Color	Black
Accessories	1*AC cable
EMC	IEC 61000-4-2/3/4/5/6
Temperature	-20~60°C For Operating -30~80°C For Storage
Humidity	RH95% MAX (Non-condensation)
Weight	N.W: 180g G.W: 375g
Dimension	Product Dimension: 147mm*65mm*43mm Packing Dimension: 210mm*128mm*56mm
Package	Kraft Carton

Product Applications

PSE30G is a single-port POE Injector with strong compatibility, which is widely used in CCTV, Smart Home, Smart Medical Care, Audio Broadcasting and other fields. It has changed the wiring mode of tr



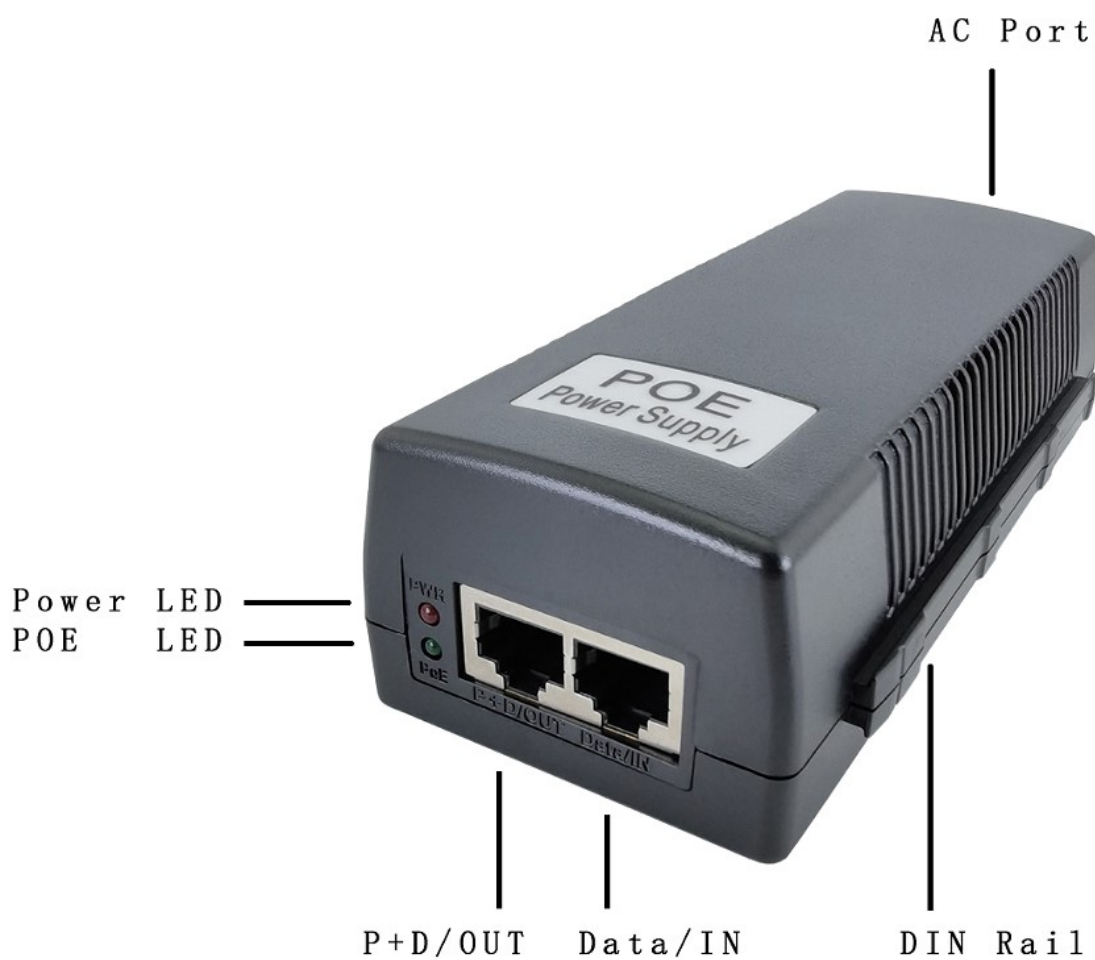
additional weak current engineering, simplifies the wiring construction steps, saves material and labor costs, and improves the stability and safety of the system.

Dimensions



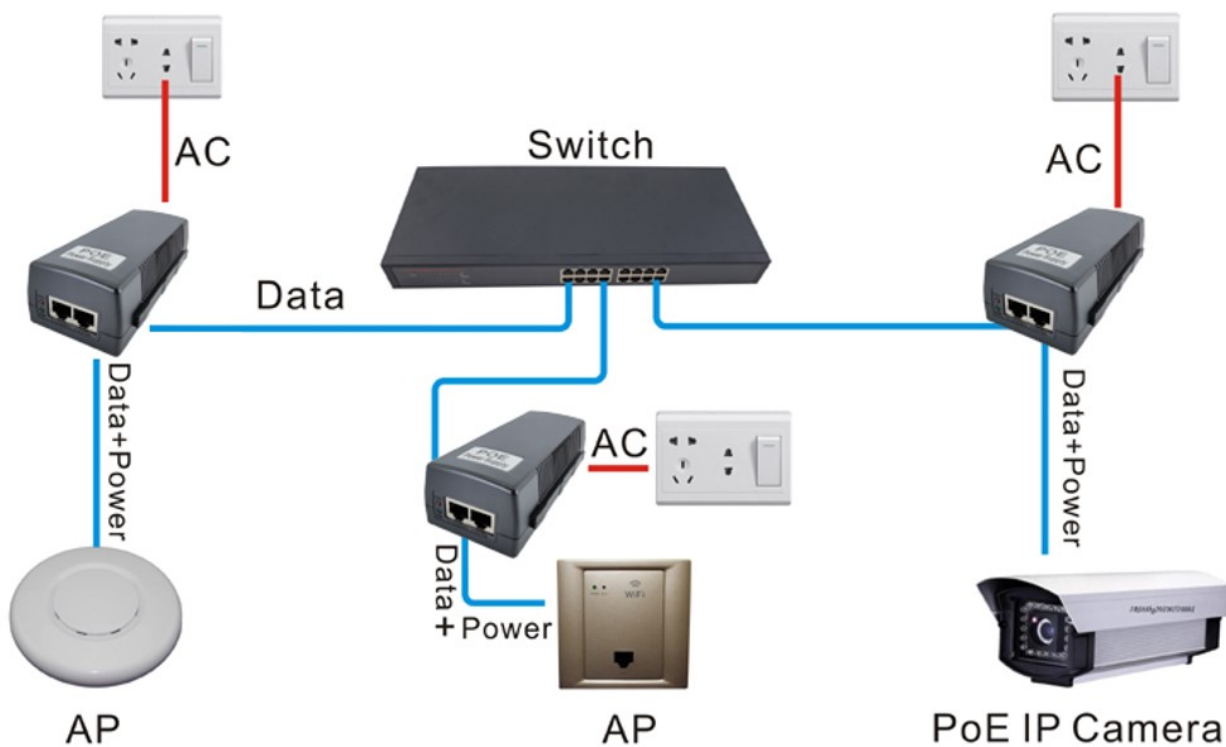


Interface Definition





Application topology



Application Scenarios



CCTV



Smart Medical Care



Audio Broadcasting



Product Detail





Product Package



Package Size:210mm*128mm*56mm (L*W*H)

Package List	
Items	Quantity
PoE Injector	1
AC Cable	1
Operation Manual	1