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

SPECIFICATION FOR APPROVAL

CUSTOMER :

PRODUCT NAME : Multi-voltage Output Super-power Gigabit PoE Splitter

PRODUCT MODEL: TSD-PD50G/TSD-PD75G

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: Multi-voltage output super power Gigabit PoE splitter

MODEL: TSD-PD50G/TSD-PD75G

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 t he 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 th e entire PoE (Power-over-Ethernet) process. The PD device is the PSE load that receives the power suppl y, 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 P D 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

TSD-PD75G is a super power gigabit PoE splitter, which can stably transmit gigabit network data and also provide power supply solutions for high-power powered devices.

TSD-PD75G conforms to IEEE802.3af/at/bt PoE standard protocol, compatible with a variety of PoE power supply equipment, the maximum output power of 75W, suitable for 40W~70W network IP equipment.

There are two models in this series:

TSD-PD50G: Output voltage DC 12V 5A / 24V 2.5A / 36V 1.5A, maximum output power: 60W

TSD-PD75G: Output voltage DC 12V 6A / 24V 3A / 36V 2A, maximum output power: 75W

Product Description

The TSD-PD75G splitter has one input port and two output ports. The input port is a RJ45 Jackfor receiving PoE signals. Output port 1 is a standard RJ45 connector for outputting data signals. Output port 2 is a DC (5.5*2.1mm) straight male plug for outputting direct current.

Dimensions: 92*63.5*28.3 mm. Body: Matte black metal casing. Overall structure: A rectangular box with hanging ears on both sides, an RJ45 input interface, and a 30cm data and DC output cable concentr ated on the front for easy connection by users.

The TSD-PD75G splitter takes in a 48V PoE signal. The DC output is 12V by default, and other vo ltages can be selected. The device's transmission rate is 10/100/1000Mbps adaptive. It features overheat pr otection, overvoltage protection, overcurrent protection, short circuit protection, electric shock protection, an d leakage protection, among other functions.

The TSD-PD75G complies with the IEEE802.3af/at/bt PoE standard protocol and has obtained certific ations such as CE, FCC, and RoHS. Its EMC parameters meet the requirements of the IEC 61000-4-2/3/4 /5/6 standards. The TSD-PD75G splitter, with a 75W super-high power output, fills the gap in the market for high-power non-PoE devices, providing users with more power supply options.

Product Features

- IEEE 802.3af/at/bt PoE international standard protocol
- Input: PoE 48V
- Output: DC 12V 6A/24V 3A/36V 2A + Data
- EMC complies with IEC 61000-4-2/3/4/5/6 standard requirements
- RJ12+RJ36-/RJ45+RJ78- Fully compatible
- 10/100/1000Mbps adaptive transmission rate
- Matting black hard metal case
- DC 5.5*2.1mm straight male plug

- 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, reduce circuit high frequency loss and heat
- Patch solid capacitor, long life to improve module power supply stability
- International famous original electronic components, high precision and high performance
- High power, high conduction and low impedance transistor, excellent reliability and temperature tolera nce
- Environmental protection high temperature resistant PCB material, environmental protection lead-free p rocess
- Pure copper pin connector to ensure stable contact

Specifications

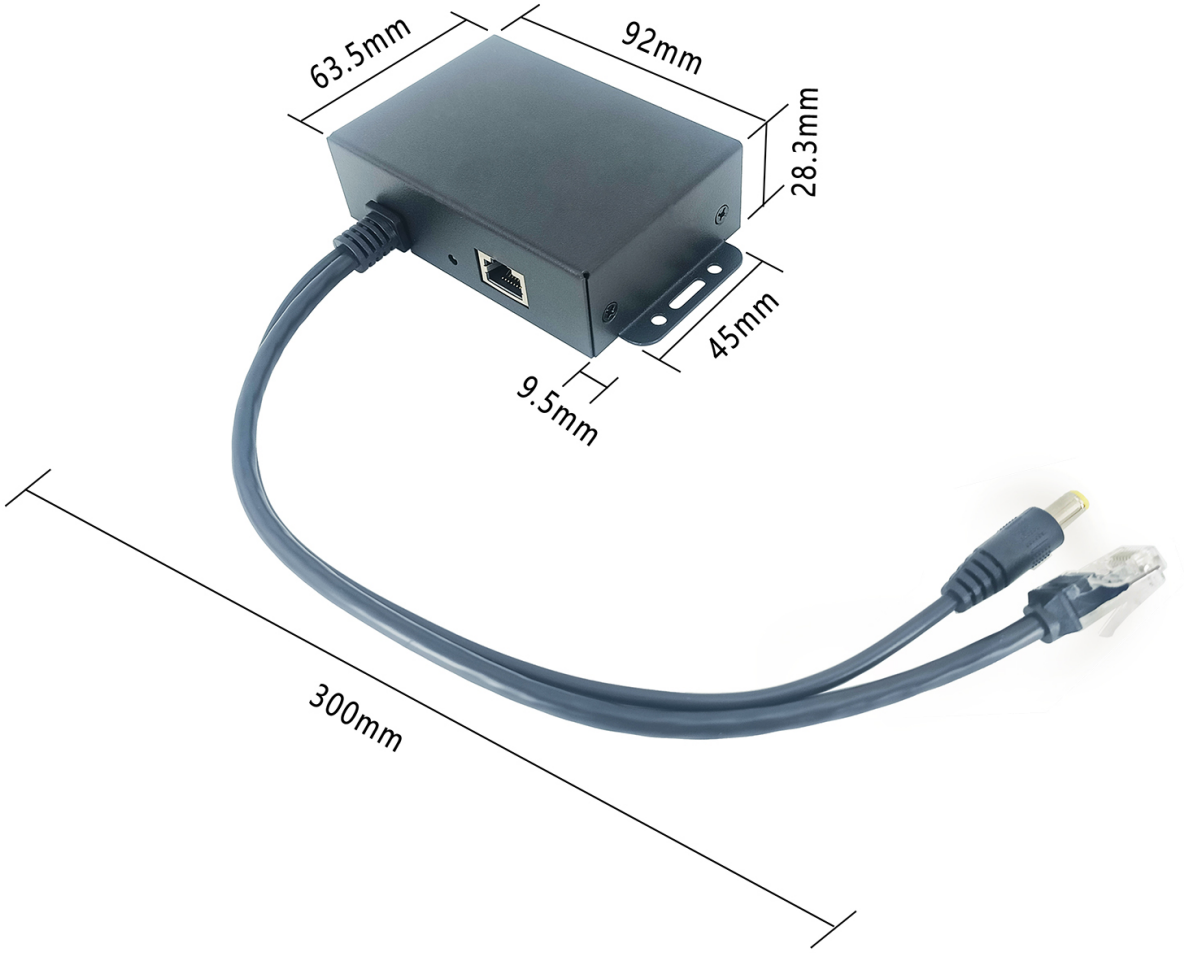
Product parameter table		
Product Name	Multi-voltage output super power Gigabit PoE splitter	
Product Model	TSD-PD50G	TSD-PD75G
PoE Standard	IEEE.802.3af/at/bt	
Input Voltage	PoE 48V	
Output	DC 12V5A/24V2.5A/36V1.5A 60W	DC 12V 6A/24V 3A/36V 2A 75W
Conversion Efficiency	≧90%	
PoE Pin	PoE: RJ12+RJ36- RJ45+RJ78- Fully compatible	
Conversion Mode	Isolated	
Data Rate	10/100/1000 Mbps adaptive	
Transmission Distance	100 meters(Category 5e Cable (Cat5e))	
Surge Protection	4KV	
Circuit Protection	Overheat protection, overvoltage protection Overcurrent protection, short circuit protection Electric shock protection, leakage protection	

LED Indicator	PoE indicator LED (green: 12V, red: 24V)
Interface	DC outlet (5.5*2.1mm plug) : DC OUT Data Outlet (RJ45 connector) : Data OUT PoE input port (RJ45Jack) : PoE IN
Function	/
Material	Hard metal materials
Color	Matte black
Accessories	/
EMC	IEC 61000-4-2/3/4/5/6
Temperature	-30～60℃ For Operating -30～80℃ For Storage
Humidity	RH95% MAX (Non-condensation)
Weight	N.W：204g
Dimension	92* 63.5* 28.3 mm (L*W*H)
Package	EPE foam + Kraft cartons (142* 111* 41mm)

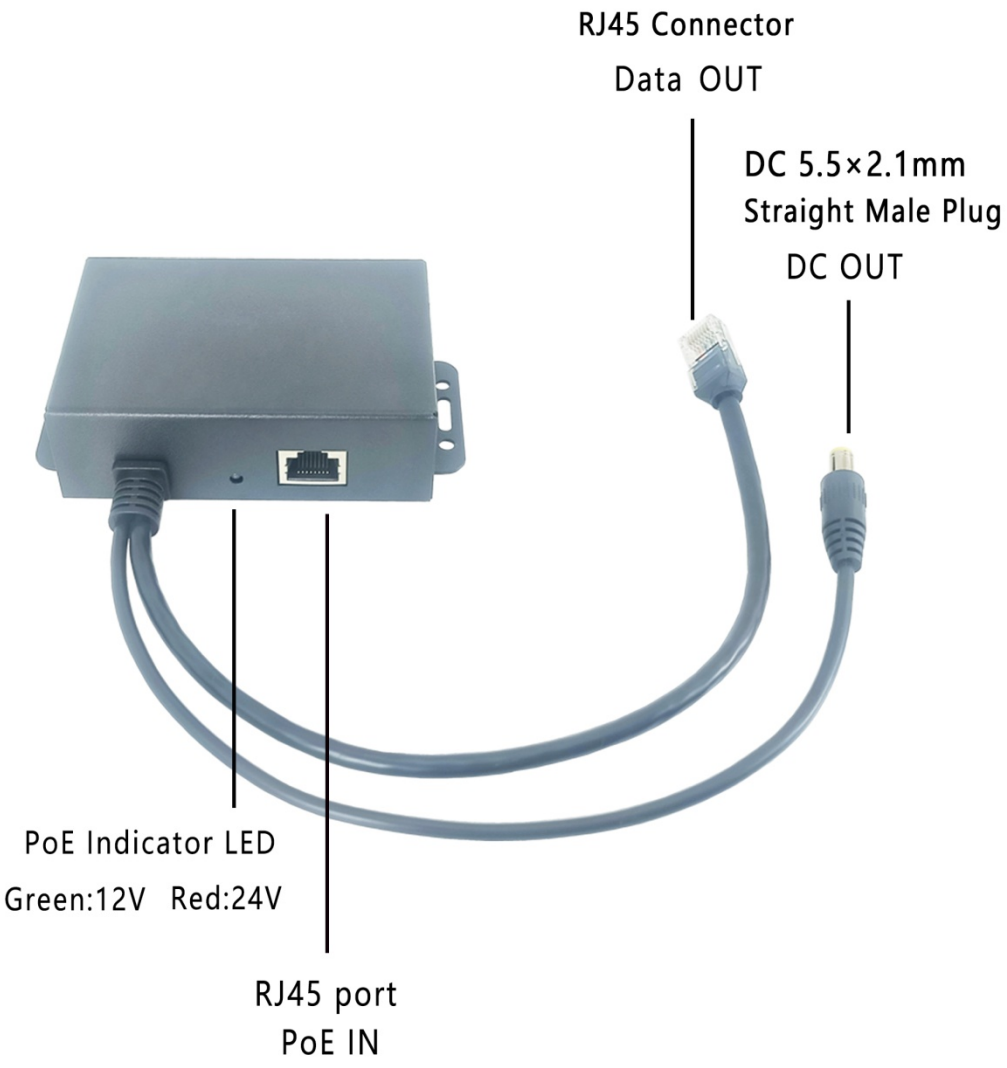
Product Applications

The TSD-PD75G splitter is suitable for high-power devices that do not support PoE such as wireless AP, web camera, IP phone, and provides a power supply solution for high-power devices that are not powered by PoE to integrate into the PoE network. The TSD-PD75G splitter can also cooperate with the PoE switch to expand the coverage of the PoE network and provide flexible choices for network deployment in various scenarios.

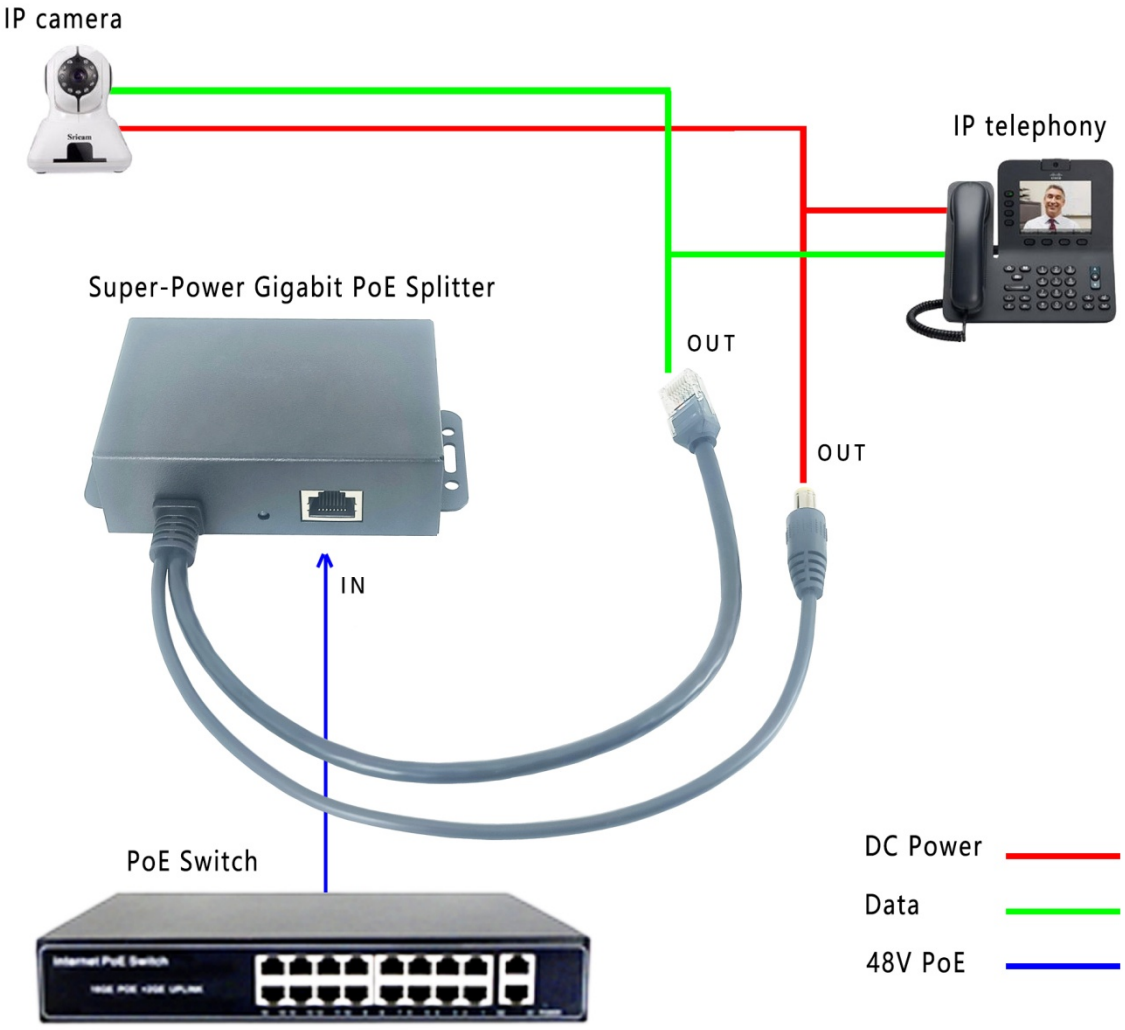
Dimensions



Interface Definition



Topology Diagram for Product Installation and Application



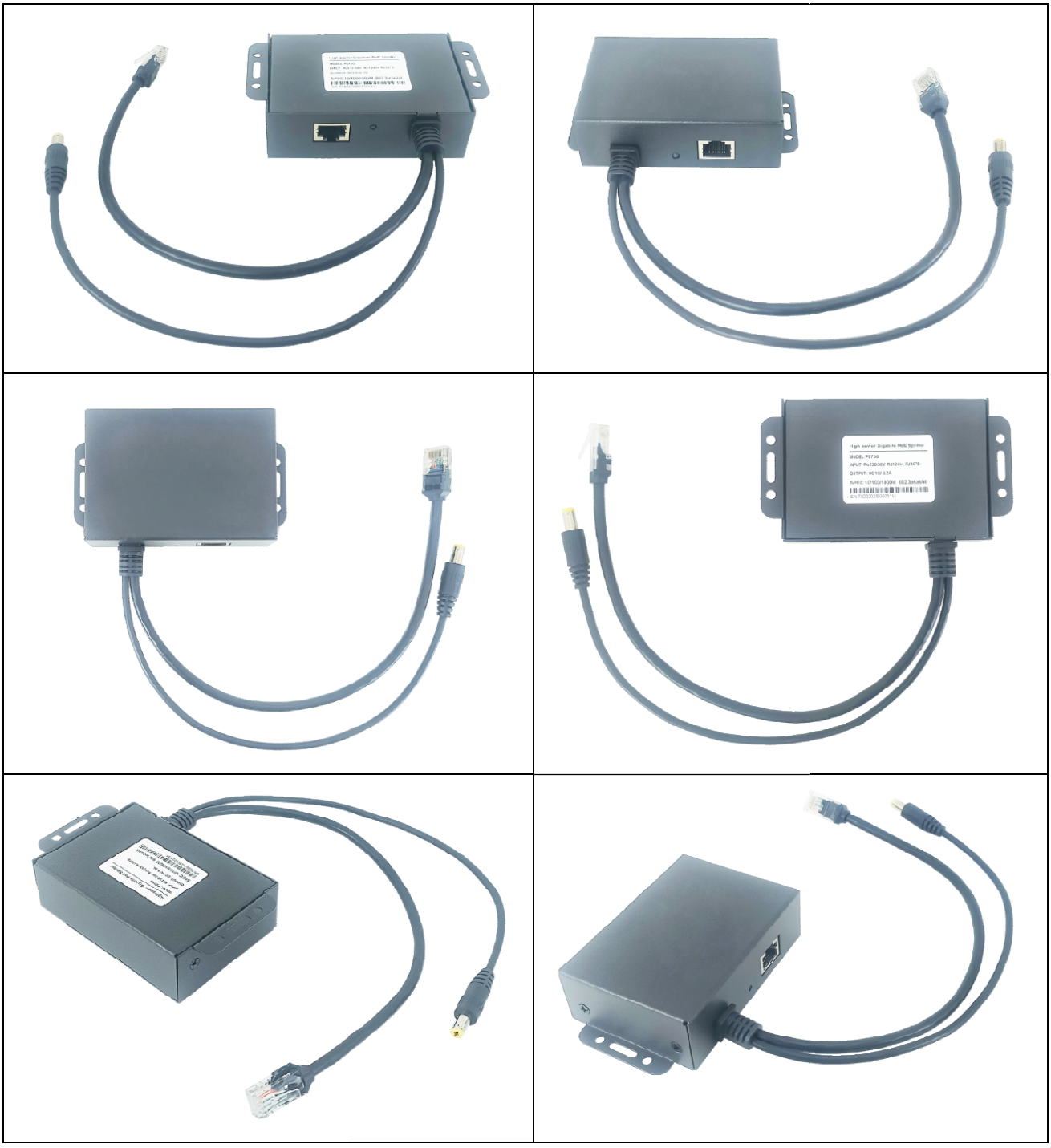
Application Scenarios

Bridge

IP Camera

Wireless AP

Product Detail



Product Package

Package Size: 142*111*41 mm (L*W*H)

MPQ: 1 PCS

N.W: 0.2 KG

G.W: 0.25 KG

Packing List	
Item	**Number**
TSD-PD75G	1
Operation manual	1