PoE Switch

FSD-504HP

4-Port 10/100Mbps 802.3af/at PoE + 1-Port 10/100Mbps Desktop Switch

PoE

30W Per Port

15.4W Per Port

Lightningproof

Metal Housing

802.3at
End-span Mid-span
802.3af

1. Package Contents

Check the following contents of your package:

FSD-504HP	User's Manual	
51V Power Adapter	Foot Pad	Power Cord
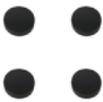
If any of these are missing or damaged, please contact your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

2. Product Features

- RJ45 Interface

  - Five 10/100Mbps Fast Ethernet ports

  - 4 ports support 51V DC power to PoE powered device

- Power over Ethernet

  - Complies with IEEE 802.3af/at Power over Ethernet end-span + mid-span PSE

  - Up to 4 IEEE 802.3af/2 IEEE 802.3at devices powered

  - Supports PoE power up to 30 watts for each PoE port

  - 60-watt PoE budget

  - Hardware DIP switch for "Standard" and "Extend" mode selection; the "Extend" mode features 30-watt PoE transmit distance of 250m at speed of 10Mbps and VLAN isolation

  - Auto detects powered device (PD)

  - Circuit protection prevents power interference between ports

  - Remote power feeding up to 100m with standard mode

- Switching

  - Hardware based 10/100Mbps auto-negotiation and auto MDI/MDI-X

  - Flow control for full duplex operation and back pressure for half duplex operation

  - 1536bytes packet size support

  - Integrates address look-up engine, supporting 1K absolute MAC addresses

  - Automatic address learning and address aging

  - Solid DIP switch to isolate ports to prevent broadcast storm and defend DHCP spoofing

- Hardware

  - Desktop palm size

  - LED indicators for PoE ready/activity and LINK/ACT

  - 6KV lightning protection

  - One DC 51V power jack

3. Switch Front Panel

Figure 3-1 shows the front panel of FSD-504HP.

Figure 3-1: FSD-504HP Front Panel

Item	Interface	Description
1	Port-1~Port-4	4 10/100BASE-TX RJ45 auto-MDI/MDI-X ports with 802.af/at PoE+ injector function.
2	Port-5	One 10/100BASE-TX RJ45 auto-MDI/MDI-X port.

4. LED Indicators

System

LED	Color	Function
PWR	Orange	**Light:** Indicates the Switch has power.

Per 10/100Mbps Port

LED	Color	Function
PoE	Orange	**Lights** to indicate the port is providing 51V DC in-line power to remote PoE PD.
LNK/ACT	Green	**Lights** to indicate the link through that port is successfully established at 10/100Mbps. **Blinks** to indicate that the Switch is actively sending or receiving data over that port.

5. Switch Rear Panel

Figure 5-1 shows the rear panel of FSD-504HP.
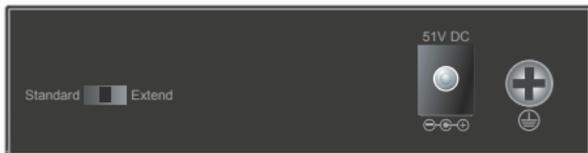
Figure 5-1: FSD-504HP Rear Panel

The front panel of FSD-504HP provides one DIP switch for **"Standard"** and **"Extend"** mode selections. The detailed descriptions are shown in the following table.

DIP Switch Mode	Function
Standard (default)	This mode makes the FSD-504HP operate as a general switch and all ports operate at 10/100Mbps auto-negotiation.
Extend	■ This mode makes the FSD-504HP operate as a **VLAN isolation** switch and port 1 to port 4 will isolate respectively., Port 1 to port 4 can only communicate with port 5 (uplink port). ■ This mode also makes the FSD-504HP operate at auto–negotiation 10Mbps speed duplex mode only, but the delivery distance of PoE power and network data can reach **250m**.

Standard PoE Mode

FSD-504HP

PoE IP Camera

Power

100 meters (328 feet)

Extend PoE Mode

FSD-504HP

PoE IP Camera

Power

250 meters (820 feet)
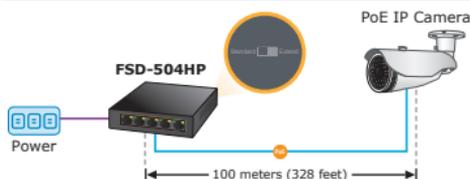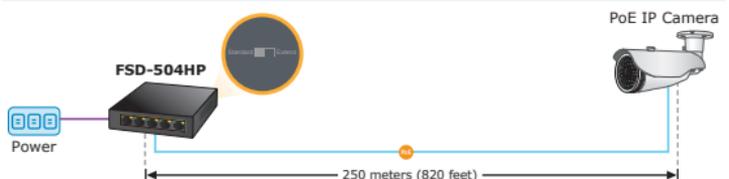
100BASE-TX UTP with PoE
10BASE-T UTP with PoE

Power
Notice

1. The device is a power-required device, meaning it will not work till it is powered. If your networks should be active all the time, please consider using UPS (Uninterrupted Power Supply) for your device. It will prevent you from network data loss or network downtime.

2. In some area, installing a surge suppression device may also help to protect your FSD-504HP from being damaged by unregulated surge or current to the FSD-504HP or the power adapter.

6. Installing the Switch

This part describes how to install your FSD-504HP and make connections to it. Please read the following topics and follow the procedures as presented.

Note	This FSD-504HP does not need software configuration.

Desktop Installation

To install the FSD-504HP on desktop, simply follow the following steps:

Step 1: Place the FSD-504HP on desktop near AC power source for its power adapter.

Step 2: Keep enough ventilation space between the FSD-504HP and the surrounding objects.

Note	When choosing a location, please keep in mind the environmental restrictions discussed in Chapter 7 -- Product Specifications.

Step 3: Connect your FSD-504HP to network devices.

  A. Connect one end of a standard network cable to the **Port-5** of the FSD-504HP that marks with **"Uplink"**.

B. Connect the other end of the cable to the network devices such as routers, Ethernet switches or NVRs (network video recorders).

Step 4: Connect your FSD-504HP to PoE PD devices.

A. Connect one end of a standard network cable to any of the four 10/100Mbps RJ45 PoE+ ports (Port 1 to Port 4).

B. Connect the other end of the cable to the 802.3at/af powered devices.

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Cable distance for switch

- If the **"DIP Switch Mode"** is set to **"Standard"**, then the distance of UTP/STP cable between the FSD-504HP and PC/PD devices should not exceed 100 meters.

- If the **"DIP Switch Mode"** is set to **"Extend"**, then the cable distance between the FSD-504HP and PC/PD devices should not exceed 250 meters.

Note

Make sure the wiring is correct

Category 3/4/5 cable can be used in 10 Mbps operation. To reliably operate your network at 100Mbps, you must use an unshielded twisted-pair (UTP) Category 5/5e cable, or better data grade cabling. While a Category 3 or 4 cable may initially seem to work, it will soon cause data loss.

Note

Step 5: Supply power to the FSD-504HP.

    A. Connect one end of the power cable to the Switch.

    B. Connect the power plug of the power cable to a standard wall outlet.

When the Switch receives power, the power LED should remain solid Orange.

Wall-mount Installation

Step 1: Please find the wall that can mount the FSD-504HP.

Step 2: Please refer to the picture below to screw the two screws on the wall.

80mm
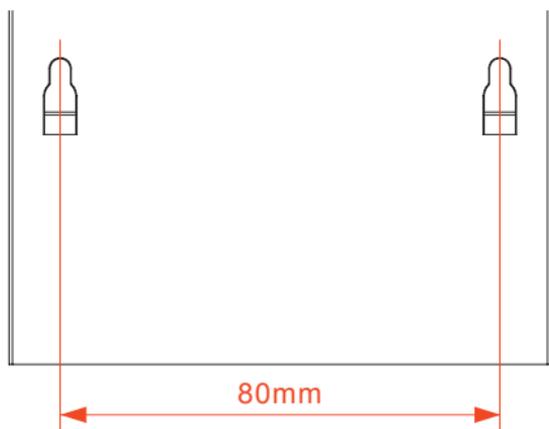
Step 3: Hang the FSD-504HP on the screws from the wall.

Step 4: Repeat step 5 of **Desktop Installation** for power supply to the FSD-504HP.

> **Note**
> Before mounting the device to the wall, please check the location of the electrical outlet and the length of the Ethernet cable.

7. Product Specifications

Model	**FSD-504HP** 4-Port 10/100Mbps 802.3af/at PoE + 1-Port 10/100Mbps Desktop Switch
Hardware Specifications	
Hardware Version	3
Network Connector	5-Port RJ45 for 10/100BASE-TX, auto MDI/MDIX
PoE Inject Port	4-Port with 802.3af/at PoE injector function (Port 1 to port 4)
LED Display	**System:** Power (Orange) **Per PoE port:** PoE (Orange, port 1 to port 4) LNK/ACT (Green, port 1 to port 5)
Switch Architecture	Store and Forward switch architecture
MAC Address Table	1K MAC address table with auto learning function
EST Protection	6KV
Switch Fabric	1Gbps
Switch Throughput	0.74Mpps @64bytes
Maximum Packet Size	1536bytes
Flow Control	Back pressure for half-duplex. IEEE 802.3x pause frame for full-duplex
Power Requirements	DC 51V, 1.25A.
Power Consumption	Max. 63 watts, 214 BTU
Dimensions (W x D x H)	100 x 100 x 26mm
Weight	257g

Power over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet/PSE IEEE 802.3at Power over Ethernet Plus/PSE
PoE Power Supply Type	End-span + mid-span
Power Pin Assignment	1/2(+), 4/5(+), 3/6(-), 7/8(-)
PoE Power Output	Per Port 51V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per Port 51V DC, 600mA. max. 30 watts (IEEE 802.3at)
PoE Power Budget	60 watts
Number of PDs, 7 watts	4
Number of PDs, 15.4 watts	4
Number of PDs, 30 watts	2
Standard Conformance	
EMI Safety	FCC, CE
Standard Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
Environment	
Operating Environment	0 ~ 50 degrees C
Storage Environment	-10 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity, non-condensing
Storage Humidity	5 ~ 95%, relative humidity, non-condensing

8. Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET Website first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQ:
http://www.planet.com.tw/en/support/faq.php?type=1

Switch support team mail address:
support_switch@planet.com.tw