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

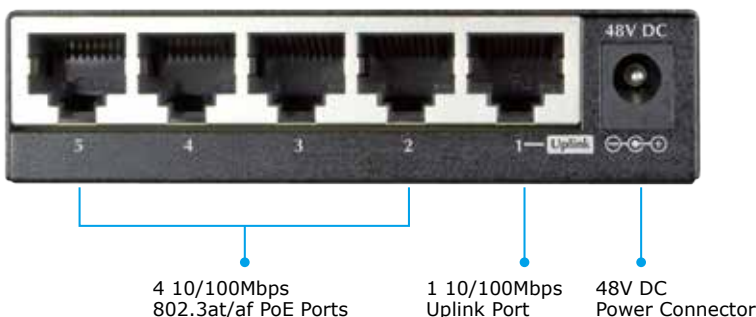

With **compact**, **easy and quick deployment** for SOHO / home-use PoE application environment, PLANET has released the FSD-504HP, a brand-new desktop size 802.3at / af PoE Switch. The FSD-504HP's advanced features are as follows:

- 4-port PoE, 60-watt PoE budget
- One 10/100Mbps uplink port
- Compact desktop palm size design

### Centralized Power Distribution for Small Ethernet Networking

The FSD-504HP is a **4-port 10/100Mbps 802.3at/af Power over Ethernet + 1-port Fast Ethernet Switch** with a total PoE budget of **60 watts**, which is an ideal solution to meeting the demand for sufficient PoE power for network applications. The four 802.3at / af PoE ports provide PoE power injector function which is able to drive 2 IEEE 802.3at compliant powered devices or 4 IEEE 802.3af compliant powered devices. The FSD-504HP also provides a simple, cost-effective and non-blocking wire-speed performance. It comes with a compact palm size metal housing, suitable for the desktop deployment of SOHO or home-use network environment.



4 10/100Mbps 802.3at/af PoE Ports
1 10/100Mbps Uplink Port
48V DC Power Connector

## RJ-45 Interface

- Five 10/100Mbps Fast Ethernet ports
  - Four ports support 48V DC power to PoE Powered Device
  - One 10/100Mbps uplink port

## Power over Ethernet

- Complies with IEEE 802.3at / af Power over Ethernet Mid-Span PSE
- Up to 4 IEEE 802.3at / af devices powered
- Supports PoE Power up to 30 watts for each PoE port
- 60-watt PoE Budget
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m

## 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

## Hardware

- Desktop palm size
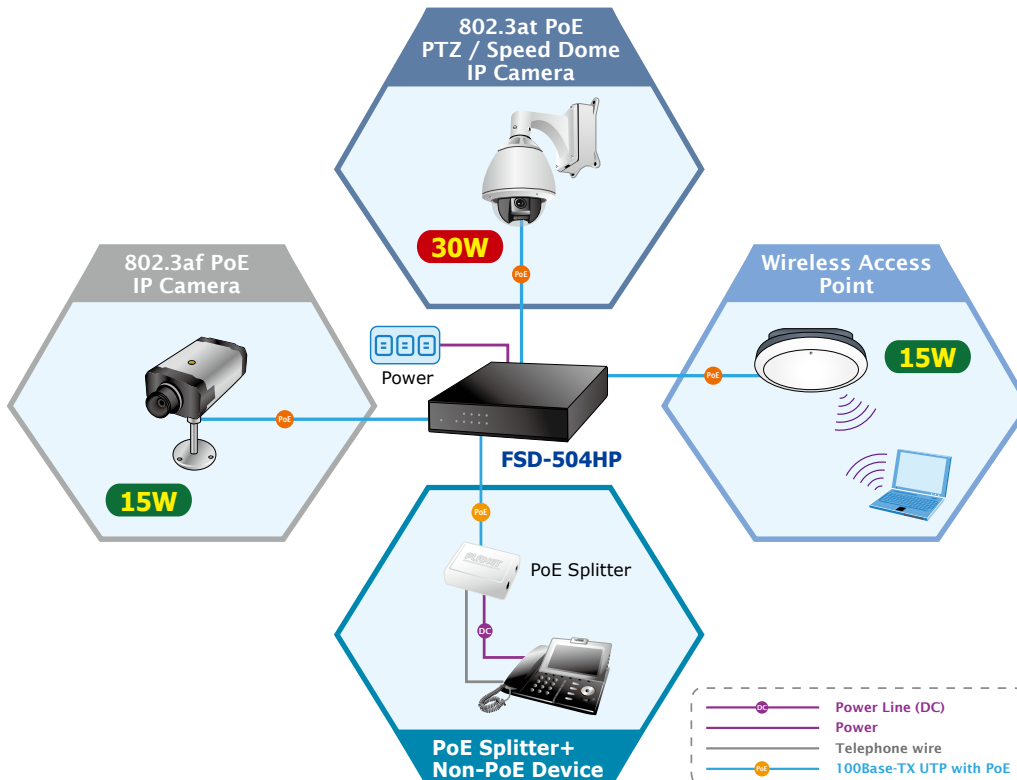- LED indicators for PoE ready / activity and LINK / ACT
- One DC 48V power jack

## Ideal Solution for SOHO Securing IP Surveillance Infrastructure

Targeting the growing popular IP surveillance applications, the FSD-504HP 802.3at / af PoE Switch is also positioned as a Surveillance Switch **for quick and easy PoE IP camera deployment with power feeding**. The FSD-504HP supports both 802.3at  and 802.3af PoE standards along with 4 10/100Base-TX ports featuring up to 30 watts per RJ-45 copper interface, and 1 extra Fast Ethernet TP interface supporting high speed transmission of surveillance images and videos.
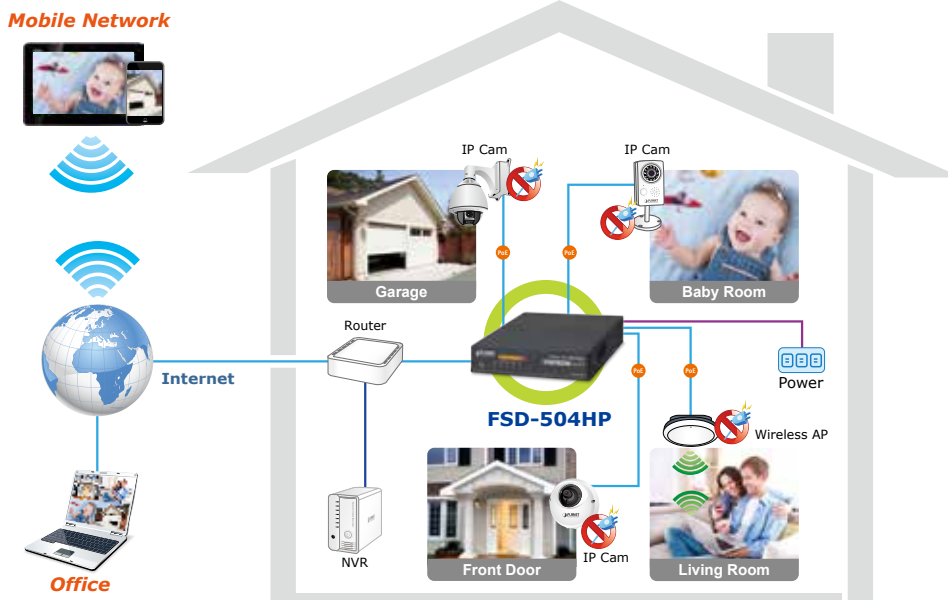


## Easy Cable Connection

With data switching and power over Ethernet integrated into one unit, the FSD-504HP reduces cabling requirements and eliminates the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. A wire that carries both data and power can lower the installation costs, simplify the installation effort and eliminate the need for electricians or extension cords. With 4 PoE interfaces, the FSD-504HP is ideal for small businesses and workgroups making the deployment of  the PoE facility including wireless access points, IP-based surveillance camera and IP phones in any places easier, more efficient and more cost-effective.

# Applications

*SOHO / HOME-Use Fast Ethernet PoE Network Deployment*

With its expanded home-use feature, the FSD-504HP 802.3at / af PoE Switch helps SOHO / home users to create an integrated data, video, and powered network. The wireless AP and PoE IP camera devices work perfectly with the FSD-504HP, which injects power through the Ethernet cables, thus helping SOHO / home users to build a cost-effective and reliable PoE Networking environment easily.
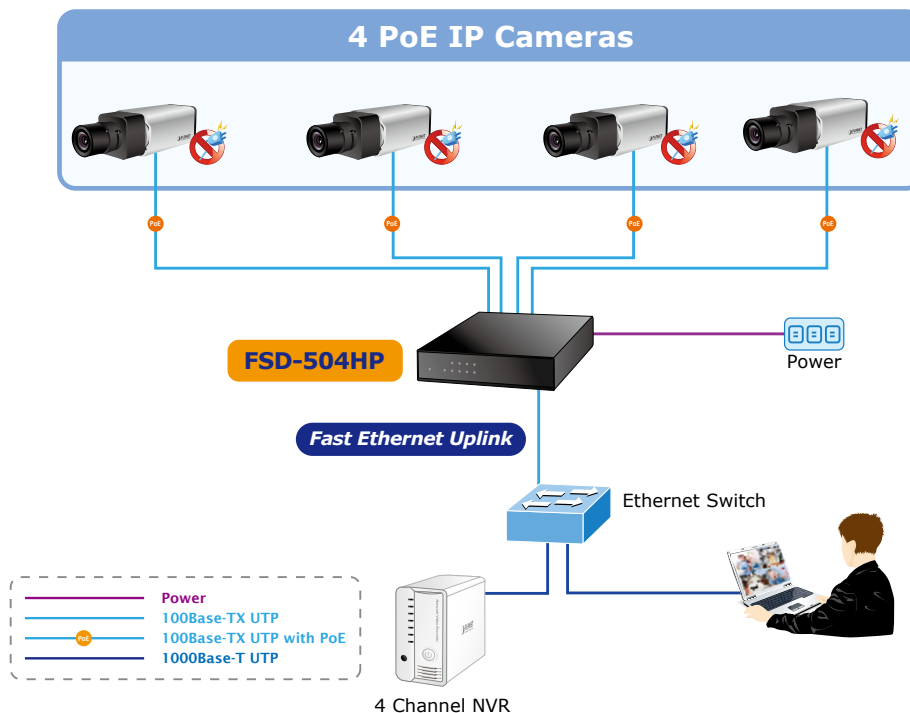


*Perfectly Integrated Solution for PoE IP Camera and NVR System*

The FSD-504HP provides four 802.3at / af PoE ports for catering to small-scale home and SOHO IP surveillance networks at a lower total cost. The FSD-504HP comes with a high performance switch architecture and 60-watt PoE power budget. The recorded video files from the 4 PoE IP cameras can be powered by the FSD-504HP and saved in the 4-channel NVR system or using surveillance software to perform comprehensive security monitoring.

For instance, one FSD-504HP can be combined with one 4-channel NVR; that is, each of its PoE port can be linked to a specific 802.3af PoE IP camera for the administrators to centrally and efficiently manage the surveillance system in one site. The FSD-504HP's Fast Ethernet TP interface also provides Fast Ethernet TP connection for uplink to NVR systems or public server groups.

## *Perfect Combination 4-Port PoE Switch + 4-Ch NVR*



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## IP Office Department / Workgroup PoE Switch

With the business office expansion, the additional telephones required could be installed in less cost via the implementation of PoE IP Telephony system than that of the traditional circuit wiring telephony system. The FSD-504HP 802.3at / af PoE Switch helps enterprises to create an integrated data, voice, and powered network. The IEEE 802.3af compliant IP phones can be installed without the need of an additional power cable because the power can be provided via the standard Ethernet cable from the connected FSD-504HP.

The wireless AP group, PoE IP phones and analog telephony adapter work perfectly with the FSD-504HP, which injects power through the Ethernet cables. With the FSD-504HP, IP telephony deployment becomes more reliable and cost effective, thus helping enterprises save tremendous cost when upgrading from the traditional telephony system to IP telephony communications infrastructure.



**Office Building**
Speed Dome
IEEE 802.3at PoE Splitter

**Office Area**
IEEE 802.3af PoE VoIP Phone

**Control Room**
**FSD-504HP**

**Office Building**
IEEE 802.3af PoE IP Camera    PoE Extender

**Warehouse**
IEEE 802.3af PoE IP Camera

Power Line (DC)
100Base-TX UTP
100Base-TX UTP with PoE

# Specifications

| Model | FSD-504HP |
|---|---|
| **Hardware** | |
| Network Connector | 5-Port RJ-45 for 10/100Base-TX, auto MDI / MDIX |
| PoE Inject Port | 4 ports with 802.3at / af PoE injector function (port 2 to port 5) |
| LED Display | System: Power (Green)<br>Per PoE port: PoE (Orange, port 2 to port 5)<br>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 |
| 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 48V, 1.5A. |
| Power Consumption | Max.62 watts / 211.5 BTU |
| Dimensions (W x D x H) | 90 x 80 x 21 mm |
| Weight | 172g |
| **Power over Ethernet** | |
| PoE Standard | IEEE 802.3af Power over Ethernet / PSE<br>IEEE 802.3at Power over Ethernet Plus / PSE |
| PoE Power Supply Type | Mid-Span |
| Power Pin Assignment | 4/5(+), 7/8(-) |
| PoE Power Output | Per Port 48V DC, 375mA. Max. 15.4 watts (IEEE 802.3af)<br>Per Port 48V DC, 375mA. Max. 30 watts (IEEE 802.3at) |
| PoE Power Budget | 60 watts |
| Number of 802.3af PD Class 0, 1, 2, 3 can be powered | 4 |
| Number of 802.3at PD Class 1, 2, 3 can be powered | 4 |
| Number of 802.3at PD Class 0, 4 can be powered | 2 |
| **Standard Conformance** | |
| EMI Safety | FCC Class A, CE |
| Standard Compliance | IEEE 802.3    Ethernet<br>IEEE 802.3u    Fast Ethernet<br>IEEE 802.3x    Flow Control<br>IEEE 802.3af    Power over Ethernet<br>IEEE 802.3at    High Power over Ethernet |
| **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 |

# Ordering Information

| FSD-504HP | 4-Port 10/100Mbps 802.3at / af PoE + 1-Port 10/100Mbps Desktop Switch |
|---|---|

## Related PoE Products

| ICA-2200 | Full HD PoE Box IP Camera |
|---|---|
| ICA-2500 | 5 Mega-pixel PoE Box IP Camera |
| ICA-3250V | Full HD Outdoor IR PoE IP Camera |
| ICA-3350V | 3 Mega-pixel Vari-focal Bullet IR IP Camera |
| ICA-4200V | Full HD 20M IR Vari-focal Dome IP Camera |
| ICA-5350V | 3 Mega-pixel Vandalproof IR IP Camera |
| ICA-8350 | 3 Mega-pixel Vandalproof Fisheye IP Camera |
| ICA-HM101 | 2 Mega-pixel PoE Cube IP Camera |
| ICA-HM126 | H.264 Full HD Box IP Camera |
| ICA-HM127 | 3 Mega-pixel H.264 Box IP Camera |
| ICA-HM132 | H.264 2 Mega-pixel 20M IR Vari-focal Dome IP Camera |
| ICA-HM136 | H.264 2 Mega-pixel 20M IR Vandalproof Dome IP Camera |
| ICA-HM312 | 2 Mega-pixel 25M IR Outdoor Bullet PoE IP Camera |
| ICA-HM316 | 2 Mega-pixel Outdoor IR PoE IP Camera |
| ICA-HM351 | 2 Mega-pixel 35M IR Outdoor Box PoE IP Camera |
| ICA-HM620 | 2 Mega-pixel PoE Plus Speed Dome Internet Camera |
| POE-152S | IEEE 802.3af Power over Ethernet Splitter |
| POE-162S | IEEE 802.3at Gigabit High Power over Ethernet Splitter |
| POE-E101 | IEEE 802.3af Power over Ethernet Extender |
| POE-E201 | IEEE 802.3at Power over Ethernet Extender |
| WDAP-C7400 | 900Mbps Dual Band Ceiling Mount Wireless Access Point |
| WNAP-C3220 | 802.11n Wireless Ceiling Mount PoE Access Point |
| WNAP-1120PE | 802.11n Wireless Access Point with PoE |
| WNAP-W2200 | 300Mbps 802.11n Wireless In-wall PoE Access Point |
| ICF-1700 | Touch Screen Internet Multimedia Phone |
| VIP-255PT | Multi–language PoE IP Phone |
| VIP-256PT | 802.3af PoE SIP IP Phone |
| VIP-360PT | Business PoE IP Phone |
| VIP-361PE | Professional PoE IP Phone (5-Line) |
| VIP-560PT | Professional PoE IP Phone |

**FSD-504HP**