

Product Specification

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

FSD-504HP

Version 1.1

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Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2013/10/25	Marc Liao	Initial Release
Version 1.1	2013/12/18	Marc Liao	Change 48V DC to 56V DC.

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Reviewed By:	Kent Kang	Approved By:	Tom Shih

1. PRODUCT DESCRIPTION



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.

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.

Quick and Easy PoE Network Deployment

The PoE capabilities provided also helps to reduce deployment costs for network devices as a result of freeing from restrictions of power outlets on the wall, ceiling or any unreachable place. Power and data switching are integrated into one unit, delivered over a single Ethernet cable at the distance up to 100 meters. It thus eliminates cost for additional AC wiring and reduces installation time.

2. PRODUCT FEATURES

➤ **RJ-45 Interface**

- Five 10/100Mbps Fast Ethernet ports
 - Four ports support 56V 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 56V power jack

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Switch ASIC:	IC Plus IP175G x1
POE Control	Microsemi PD69104B x 1
Power Adapter	L.T.E LTE65E-S7-1 56V, 1.16A

3.2 FUNCTION SPECIFICATION

Model	FSD-504HP	
Hardware Specifications		
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) Per PoE port: PoE (Orange, port 2 to port 5) 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 56V, 1.16A.	
Power Consumption	Max.62 watts / 211.5 BTU	
Power over Ethernet		
PoE Standard	IEEE 802.3af Power over Ethernet / PSE 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 56V DC, 300mA. Max. 15.4 watts (IEEE 802.3af) Per Port 56V DC, 600mA. 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		
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	High Power over Ethernet

3.3 PHYSICAL SPECIFICATIONS:

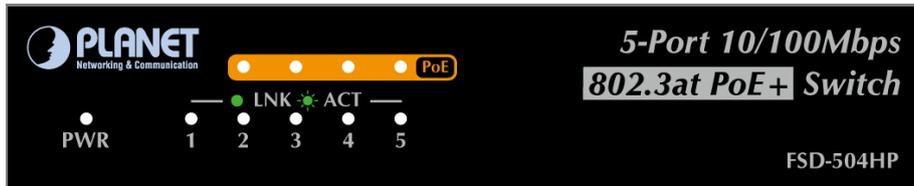
■ **Dimensions:**

90 x 80 x 21 mm (W x D x H)

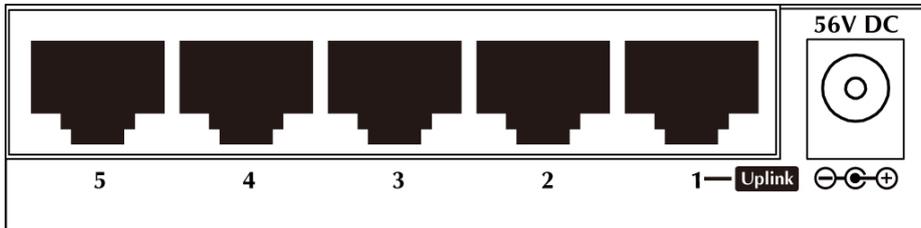
■ **Weight:**

172g

■ **Front Panel:**



■ **Rear Panel:**



■ **LED Definition**

■ **System**

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

■ **Per 10/100Mbps Port**

LED	Color	Function
PoE	Orange	Light: Indicates the port is providing 56V DC in-line power.
LNK/ACT	Green	Light: Indicates the link through that port is successfully established at 10/100Mbps. Blink: Indicates that the Switch is actively sending or receiving data over that port.

3.4 ENVIRONMENTAL SPECIFICATION

Operating:

Temperature: 0°C ~ 50 degrees C
Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -10°C ~ 70 degrees C
Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

DC Power Input Voltage:		DC 56V, 1.16A.
Power Consumption(System on):	110V	2.1 watts / 7.16 BTU
	220V	2.7 watts / 9.21 BTU
Power Consumption (Ethernet Full Load Steady):	110V	2.5 watts / 8.53 BTU
	220V	3.1 watts / 10.5 BTU
Power Consumption (Ethernet Full Load Operating):	110V	2.9 watts / 9.89 BTU
	220V	3.6 watts / 12.2 BTU
Power Consumption (PoE Full Load + Ethernet Full Load):	110V	62 watts / 211.5 BTU
	220V	62 watts / 211.5 BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

■ FSD-504HP	X1
■ User's Manual	X1
■ Power Adapter	X1
■ Power Cord	X1
■ Rubber Feet	X4

3.9 PACKING DIMENSION

Dimension: Box 234 mm (W) × 153 mm (D) × 62 mm (H)
Dimension: Carton 472 mm (W) × 324 mm (D) × 248 mm (H)
Weight(Total): TBD (Gross Weight)
 15pcs in one carton