Product Specifications

8-Port 10/100Mbps Ethernet Switch with
4-Port 802.3at PoE+ Injector

FSD-804P

Version 4.0

Change History:

Revision:	Date:	Author:	Change List
Version 1.0	2005/08/18	Ryan Cheng	Initial Release
Version 2.0	2007/9/10	Berton Yeh	Hardware changed (Fan add)
Version 3.0	2008/05/10	Kent Kang	1. Main Switch MAC replaced 2. LED display changed
Version 4.0	2016/11/14	Bryant Wu	Product Improvement ■ Change PoE chipset ■ 802.3at PoE+ support ■ Extend mode support ■ Remove fan

Author:	Bryant Wu	Editor:	Bryant Wu
Reviewed By:		Approved By:	Kent Kang

1. PRODUCT DESCRIPTION

Cost-effective Centralized Power Distribution

PLANET FSD-804P is equipped with **eight 10/100BASE-TX** ports and four **802.3at PoE+** copper interfaces. For cost saving and flexible use of PoE power provision, half of the 10/100Mbps TP ports of the FSD-804P provide PoE power injector function which is able to drive 4 IEEE 802.3at/af compliant powered devices. For SOHO or department network, the Switch also provides a simple, cost-effective and highly-reliable network connection for data as well as power. Furthermore, it is the ideal device for bridging Ethernet and Fast Ethernet workgroups or networks.

Ethernet Data Transmit Distance Extension

The built-in solid DIP switch provides **"Standard"** and **"Extend"** operation modes. The FSD-804P operates as a normal IEEE 802.at/af PoE Switch in the **"Standard"** operation mode. In the **"Extend"** operation mode, the FSD-804P operates on a per-port basis at 10Mbps duplex operation but can support 30-watt PoE power output over a distance of up to 200 meters overcoming the 100m limit on Ethernet UTP cable. With this brand-new feature, the FSD-804P provides an additional solution for 802.3at/af PoE distance extension, thus saving the cost of Ethernet cable installation.

Environment-friendly, Fanless Design for Silent Operation

The FSD-804P comes with a desktop-sized, compact metal housing, making the placement of the unit convenient. It features a ventilated construction in which a cooling fan is not necessary, thereby making its operation noiseless. Moreover, the FSD-804P is able to operate reliably and stably in any environment without affecting its performance. The deployment of PoE PDs with constant power feeding can be easily and quickly done.

Easy Cable Connection

With data switching and power over Ethernet integrated into one unit, the FSD-804P 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-804P 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.

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2. PRODUCT FEATURES

► **Physical Port**

- ■ **8-port 10/100BASE-T** Fast Ethernet RJ45 copper
- ■ **4-port IEEE 802.3at/af** PoE Injector (Port-1 to Port-4)

► **Power over Ethernet**

- ■ Complies with IEEE 802.3af/at Power over Ethernet end-span PSE
- ■ Up to 4 ports of IEEE 802.3af/802.3at devices powered
- ■ Supports PoE Power up to 30.8 watts for each PoE port
- ■ Each port supports 53V DC power to PoE powered device
- ■ 60-watt PoE budget
- ■ Auto detects powered device (PD)
- ■ Circuit protection prevents power interference between ports
- ■ Remote power feeding up to 100m with standard mode, 200m with extended 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
- ■ IEEE 802.1Q VLAN transparency
- ■ Hardware DIP switch for **"Standard"** and **"Extend"** mode selection; the **"Extend"** mode features 30-watt PoE transmit distance of 200m at speed of 10Mbps (Only for Port1 – Port4)

► **Hardware**

- ■ 8.5-inch desktop size, 1U height, rack mountable
- ■ LED indicators for system power, per port PoE ready and PoE activity, speed, Link/Act
- ■ Fanless design
- ■ Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

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3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

Switch ASIC	IC+ IP178G	x 1
PoE Controller	IC+ IP804	x 1
PoE Controller MCU	IC+ IP210T	x 1

3.2 FUNCTION SPECIFICATIONS

Model	FSD-804P
Hardware Specifications	
Hardware Version	4
10/100BASE-TX MDI/MDIX Ports	8
PoE Injector Port	4 ports with 802.3at/af PoE injector function with Port-1 to Port-4
Switch Architecture	Store-and-Forward
Switch Fabric	1.6Gbps/non-blocking
Switch Throughput@64 bytes	1.19Mpps@64 bytes
MAC Address Table	1K entries, automatic source address learning and aging
Flow Control	IEEE 802.3x pause frame for full-duplex Back pressure for half-duplex

LED	**System**:
	    Power (**Green**)
	    PoE max. (**Green**)
	10/100BASE-T RJ45 Interfaces:
	    10/100Mbps LNK/ACT (**Green**)
	PoE Interfaces:
	    PoE-in-Use (**Orange**)

DIP Switch	Selectable operation mode ■ Standard ■ Extended
Dimensions (W x D x H)	215 x 133 x 42 mm (1U height)
Enclosure	Metal
Weight	880g
Power Requirements	AC 100~240V, 50/60Hz, 2A max.
Power Consumption/Dissipation	Max. 65 watts/223 BTU
Thermal Fan	Fanless
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

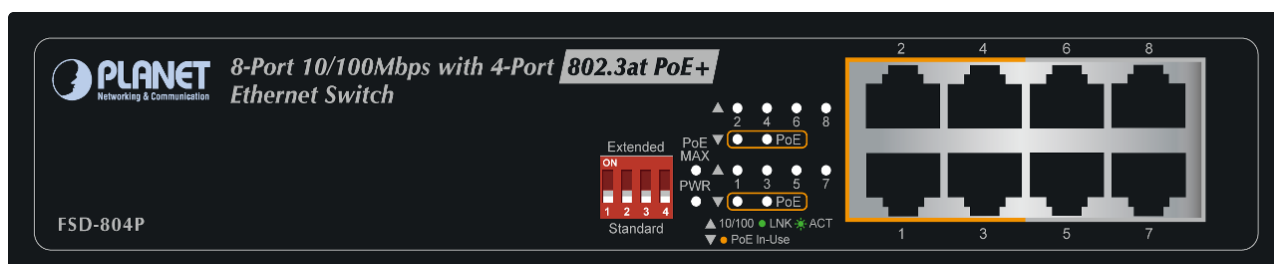| PoE Power Output	Per port 53V DC, 600mA. max. 30 watts
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	60 watts
Max. Number of Class 2 PDs	4
Max. Number of Class 3 PDs	4
Max. Number of Class 4 PDs	2
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x Flow control and back pressure IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3az Energy Efficient Ethernet (EEE)
Environment	
Operating	Temperature: 0 ~ 50 degrees C Relative Humidity: 5 ~ 95% (non-condensing)
Storage	Temperature: -10 ~ 70 degrees C Relative Humidity: 5 ~ 95% (non-condensing)

3.3 PHYSICAL SPECIFICATIONS:

■ **Dimensions:**
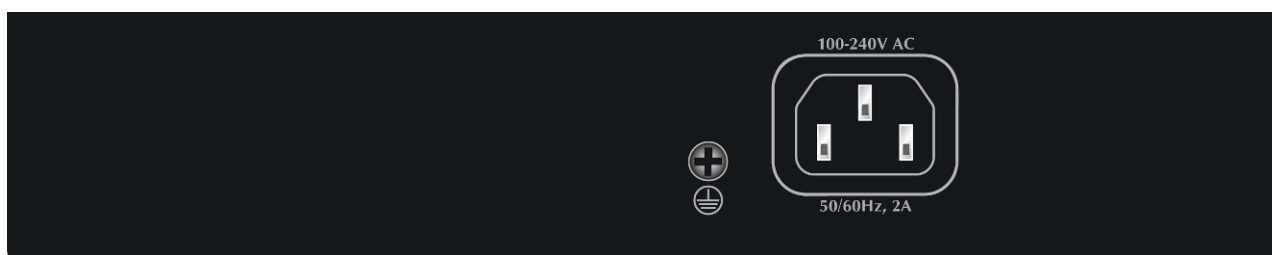
215 x 133 x 42mm (W x D x H), 1U height

■ **Weight:**

880g

■ **Front Panel:**

■ **Rear Panel:**

■ **LED definition**

■ **System**

LED	Color	Function
PWR	Green	**Lights** to indicate the Switch has power.
POE MAX	Green	**Lights** to indicate that the PoE usage is full.

■ **Per 10/100Mbps Port**

LED	Color	Function
PoE-in-use	Orange	**Lights** to indicate the port is providing 53V DC in-line power. (1-4 ports)
Speed/ LNK/ACT	Green	**Lights** to indicate the Switch is successfully connecting to the network at 10/100Mbps. **Blinks** to indicate that the Switch is actively sending or receiving data over that port.

3.4 ENVIRONMENTAL SPECIFICATIONS

Operating:

Temperature: 0°C ~ 50 degree C

Relative Humidity: 5% ~ 95% (non-condensing)

Storage:

Temperature: -40°C ~ 70 degree C

Relative Humidity: 5% ~ 95% (non-condensing)

3.5 ELECTRICAL SPECIFICATION

Input Voltage:	100~240V AC, 50/60Hz, 2A (max.)
Power Consumption (System on):	100V: 2.6 watts/8.8BTU
	110V: 2.6 watts/8.8BTU
	120V: 2.6 watts/8.8BTU
	220V: 2.8 watts/9.5BTU
	240V: 2.8 watts/9.5BTU
Power Consumption (Ethernet Full Loading):	100V: 3.7 watts/12.6BTU
	110V: 3.7 watts/12.6BTU
	120V: 3.7 watts/12.6BTU
	220V: 3.8 watts/12.9BTU
	240V: 3.8 watts/12.9BTU
Power Consumption (PoE Full Loading):	100V: 68.7 watts/233.6BTU
	110V: 68.7 watts/233.6BTU
	120V: 68.7 watts/233.6BTU
	220V: 68.8 watts/233.9BTU
	240V: 68.8 watts/233.9BTU

3.6 REGULATORY COMPLIANCE

FCC Class A, CE.

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 decree C

3.8 BASIC PACKAGING

- The FSD-804P x 1
- User's Manual x 1
- Two Rack-mounting Brackets with Attachment Screws x 1 (For 19-inch rack)
- Rubber Feet x 4
- Power Cord x 1

3.9 Packing Dimensions

Dimensions: Box	325 (W) x 223 (D) x 71 mm (H)
Dimensions: Carton	598 (W) x 337 (D) x 247 mm (H)
Weight (Total):	14.76kg (gross weight)
Quantity:	8pcs in one carton