

# Product External Specification For Powerline AV 4-port Switch

Model Name: DHP-346AV Rev. A1

Document Revision: 1.02



## History

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Rev	Date	Author	Reason for Changes
1.00	2010/11/7	Nero Huang	• 1 <sup>st</sup> release
1.01	2010/11/8	Webber Hsu	• Revise typo
1.02	2011/1/11	Webber Hsu	• Revise typo
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## 1.0 Scope

### 1.1 Document

D-Link DHP-346AV Powerline AV 4-Port Switch compliant with HomePlugAV standard is an extended access solution with 4 Ethernet ports allows you to network your home computers, networking devices and gaming devices through the most pervasive medium in your house, the electric power lines. Users can easily have data transferring and share Internet connections, printers, AV contents. Besides, the low power design hardware and firmware can be compliant with European EuP and CoC standards.

### 1.2 Product Feature

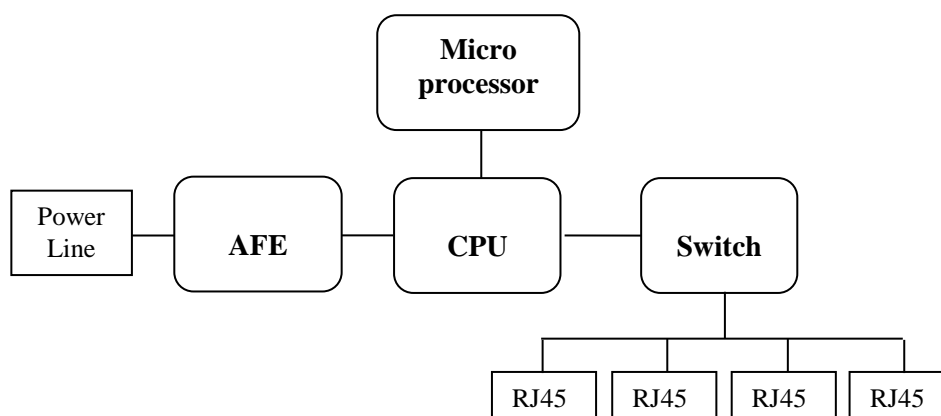
- **Power Line Interface**  
One PowerLine interface Compatible with HomePlug AV specification
- **LAN Interface:**  
Four fast Ethernet LAN ports
- **Security**  
128-bit AES Link Encryption with key management for secure power line communications
- **Functions support:**  
Power saving mode  
Port-based QoS  
Simple connect Button

## 2.0 Requirements

The following sections identify the detailed requirements of the DHP-346AV Powerline AV 200 Mbps 4-port Switch

## 2.1 Hardware Specification

### 2.1.1 Block Diagram



### 2.1.2 Hardware Interface

	Feature	Detailed Description
2.1.2.1	Power Line Interface	<ul style="list-style-type: none"> <li>One PLC interface Compatible with HomePlug® AV specification up to 200 Mbps</li> </ul>
2.1.2.2	LAN Interface	<ul style="list-style-type: none"> <li>Four fast Ethernet LAN ports</li> <li>Complies IEEE 802.3 specification</li> <li>Support IEEE 802.3x Flow Control</li> <li>Support Auto Negotiation</li> <li>Support Auto MDI/MDIX</li> </ul>
2.1.2.3	Reset Button	<ul style="list-style-type: none"> <li>1 Push button for reset the device to default setting.</li> </ul>
2.1.2.4	Simple Connect Button	<ul style="list-style-type: none"> <li>1 Push button for Power Line sync connection</li> </ul>

### 2.1.3 LED Indicators

	LED Indicator	Color	Status	Description
2.1.3.1	Power	Green	Blinking Green	<ul style="list-style-type: none"> <li>The adapter is in the process of resetting and simple connect button.</li> </ul>
			Slow Blinking Green	<ul style="list-style-type: none"> <li>The adapter is in the process of resetting, power saving mode</li> </ul>
			Solid Green	<ul style="list-style-type: none"> <li>The device is power on</li> </ul>
			Light off	<ul style="list-style-type: none"> <li>The device is power off</li> </ul>
	Power Line	Green/ Orange/ Red	Solid	<ul style="list-style-type: none"> <li>The link is established</li> </ul>
			Blinking Green	<ul style="list-style-type: none"> <li>Data transmission on high performance</li> </ul>
			Blinking Orange	<ul style="list-style-type: none"> <li>Data transmission on medium performance</li> </ul>
			Blinking Red	<ul style="list-style-type: none"> <li>Data transmission on low performance</li> </ul>
			Light off	<ul style="list-style-type: none"> <li>The link is not established</li> </ul>
	LAN	Green	Solid Green	<ul style="list-style-type: none"> <li>The link is established</li> </ul>
			Blinking Green	<ul style="list-style-type: none"> <li>Data transmission</li> </ul>
			Light off	<ul style="list-style-type: none"> <li>The link is down</li> </ul>

## 2.1.4 Port-based QoS



Highest Priority	High Priority	Medium Priority	Medium Uplink	RESET	AC IN
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	Feature	Detailed Description
2.1.4.1	Highest Priority	<ul style="list-style-type: none"> <li>Has the highest priority and gives uninterrupted service to the connected devices.</li> </ul>
2.1.4.2	High Priority	<ul style="list-style-type: none"> <li>Has a high priority. You can connect devices such as game consoles to this port.</li> </ul>
2.1.4.3	Medium Priority	<ul style="list-style-type: none"> <li>Both have lowest priority and are best for networking data devices, such as printers.</li> </ul>

## 2.2 Utility Specification

	Feature	Detailed Description
2.2.1	System compatible	<ul style="list-style-type: none"> <li>Compatible with Windows XP, Vista, and Windows 7</li> </ul>
2.2.2	Support Functions	<ul style="list-style-type: none"> <li>Support parameter settings such as Encryption Key key, device password, device rename, factory reset.</li> <li>GUI display information such as link rate, MAC address of PLC devices on the Powerline network, End-user connecting numbers.</li> </ul>

## 2.3 Electrical Characteristic

	Feature	Detailed Description
2.3.1	Power Input	<ul style="list-style-type: none"> <li>100V ~ 240V, 50/60 HZ internal universal power supply</li> </ul>
2.3.2	Power Consumption	<ul style="list-style-type: none"> <li>Maximum 3W</li> </ul>

## 2.4 Mechanical Requirements

	Feature	Detailed Description
2.4.1	Length	<ul style="list-style-type: none"> <li>137mm</li> </ul>
2.4.2	Width	<ul style="list-style-type: none"> <li>110mm</li> </ul>
2.4.3	Height	<ul style="list-style-type: none"> <li>32mm</li> </ul>
2.4.4	Weight	<ul style="list-style-type: none"> <li>200g</li> </ul>

## 2.5 Environmental Requirements

	Feature	Detailed Description
2.5.1	Operating Temperature Conditions	<ul style="list-style-type: none"> <li>The product is capable of continuous reliable operation when operating in ambient temperature of 0 °C to +40°C.</li> </ul>
2.5.2	Non-Operating Temperature Conditions	<ul style="list-style-type: none"> <li>Neither subassemblies is damaged nor the operational performance be degraded when restored to the operating temperature after exposing to storage temperature in the range of -10 °C to +70 °C.</li> </ul>
2.5.3	Operating Humidity conditions	<ul style="list-style-type: none"> <li>The product is capable of continuous reliable operation when subjected to relative humidity in the range of 10% and 90% non-condensing.</li> </ul>
2.5.4	Non-Operating Humidity Conditions	<ul style="list-style-type: none"> <li>The product is not be damaged nor the performance be degraded after exposure to relative humidity ranging from 5% to 95% non-condensing</li> </ul>

## 2.6 Certification Requirements

	Feature	Detailed Description
2.6.1	EMC	<ul style="list-style-type: none"> <li>FCC, CE, K.21</li> </ul>
2.6.2	Safety	<ul style="list-style-type: none"> <li>UL, CE/LVD, TUV/CB, PSB</li> </ul>
2.6.3	Power Consumption	<ul style="list-style-type: none"> <li>EuP, CoC</li> </ul>