

Product External Specification For Powerline AV 500 4-port Gigabit Switch

Model Name: DHP-540 Rev. A1

Document Revision: 1.01



History

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Rev	Date	Author	Reason for Changes
1.00	2010/12/31	Webber Hsu	• 1 st release
1.01	2011/2/15	Webber Hsu	• Revise Qos
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1.0 Scope

1.1 Document

D-Link DHP-540 Powerline AV 4-Port Gigabit Switch compliant with HomePlugAV and IEEE1901 standard is an extended access solution with 4 Gigabit LAN 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 save energy up to 60%.

1.2 Product Feature

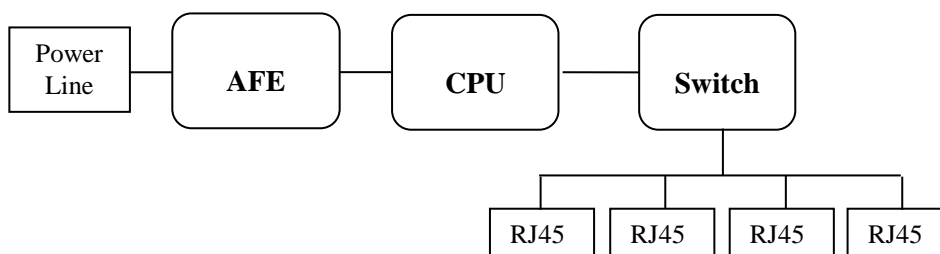
- **Power Line Interface**
One PowerLine interface Compatible with HomePlug AV and IEEE 1901 specification
- **LAN Interface:**
Four Gigabit LAN ports
- **Security**
128-bit AES Link Encryption with key management for secure power line communications
- **Functions support:**
Power saving mode
Simple Connect Button
New D-Link Powerline configuration utility with easy setup wizard

2.0 Requirements

The following sections identify the detailed requirements of the DHP-540 Powerline AV 4-port Gigabit 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"> One PLC interface Compatible with HomePlug® AV and IEEE1901 specification up to 500 Mbps
2.1.2.2	LAN Interface	<ul style="list-style-type: none"> Four fast Gigabit LAN ports Complies IEEE 802.3 specification Support IEEE 802.3x Flow Control Support Auto Negotiation Support Auto MDI/MDIX
2.1.2.3	Reset Button	<ul style="list-style-type: none"> 1 Push button for reset the device to default setting.
2.1.2.4	Simple Connect Button	<ul style="list-style-type: none"> 1 Push button for Power Line sync connection
2.1.2.5	Power switch Button	<ul style="list-style-type: none"> 1 Power On/Off switch button

2.1.3 LED Indicators

	LED Indicator	Color	Status	Description
2.1.3.1	Power	Green	Blinking Green	• The adapter is in the process of resetting, power saving mode, or simple connect button.
			Solid Green	• The device is power on
			Light off	• The device is power off
	Power Line	Green/ Orange/ Red	Solid	• The link is established
			Blinking Green	• Data transmission on high performance
			Blinking Orange	• Data transmission on medium performance
			Blinking Red	• Data transmission on low performance
			Light off	• The link is not established
	LAN	Green	Solid Green	• The link is established
			Blinking Green	• Data transmission
			Light off	• The link is down

2.2 Utility Specification

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

2.3 Electrical Characteristic

	Feature	Detailed Description
2.3.1	Power Input	• 110-240V AC, 50-60Hz, 0.12A
2.3.2	Maximum Operating Voltage	• 240V
2.3.3	Maximum Power Consumption (W)	• 13.2 Watt

2.4 Mechanical Requirements

	Device	Detailed Description
2.4.1	Length	• 132 mm
2.4.2	Width	• 103 mm
2.4.3	Height	• 42 mm
2.4.4	Weight	• 250 grams

2.5 Environmental Requirements

	Feature	Detailed Description
2.5.1	Operating Temperature Conditions	• The product is capable of continuous reliable operation when operating in ambient temperature of 0 °C to +40°C.
2.5.2	Non-Operating Temperature	• Neither subassemblies is damaged nor the operational performance be degraded when restored to the operating temperature after

	Feature	Detailed Description
	Conditions	exposing to storage temperature in the range of -10 °C to +70 °C.
2.5.3	Operating Humidity conditions	<ul style="list-style-type: none"> The product is capable of continuous reliable operation when subjected to relative humidity in the range of 10% and 90% non-condensing.
2.5.4	Non-Operating Humidity Conditions	<ul style="list-style-type: none"> The product is not be damaged nor the performance be degraded after exposure to relative humidity ranging from 5% to 95% non-condensing

2.6 Certification Requirements

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