

Product Specification

5-Port 10/100/1000Mbps Gigabit Ethernet Switch

GSD-503

Version 7.0

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Change History:

Revision:	Date:	Author:	Change List
Version 5.0	2010/9/3	Marc Liao	Initial Release
Version 6.0	2011/8/18	Marc Liao	Initial Release Chipset replacement from RTL8367-GR to RTL8367-VB.
Version 7.0	2014/4/21	Marc Liao	Initial Release 1. Chipset replacement from RTL8367-VB to RTL8367N. 2. Change power source from 12V DC to 5V DC.

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Reviewed By:	Kent Kang	Approved By:	Tom Shih

1. PRODUCT DESCRIPTION



Optimal Solution for Energy Saving and Gigabit High Performance

PLANET Green Networking Switch - GSD-503 is an ideal solution in line with the energy-saving trend worldwide. The GSD-503 is a 5-port Gigabit Ethernet Switch bringing both benefits of energy saving and Gigabit wire speed performance. It is specially designed for home networking, SOHOs and enterprises.

Energy Saving

The GSD-503 incorporates two advanced Green Networking technologies and is able to provide power saving up to 40% less energy but maintains high performance efficiently.

(1) Hibernation Link Down power saving

The **Hibernation Link Down power saving** goes beyond IEEE specifications to automatically lower power for a given port when it is not linked. With the Hibernation Link Down power saving technology, the GSD-503 will automatically adjust power usage of the ports that are shut down or not connected to network device.

(2) Intelligent scales power based on cable length

Intelligent scales power, the other technology adopted, is an intelligent algorithm that actively determines the appropriate power level based on cable length. When the GSD-503 is connected with Ethernet cable shorter than 20m, a device can obtain maximum power saving because the GSD-503 would automatically detect the Ethernet cable length and diminish power usage. The connected device can substantially reduce the overall power consumption, which makes a significant contribution to energy saving.

Leading Home, SOHO and Workgroup Users to High-speed Networking Generation

The GSD-503 is designed with modern **metal** compact housing and easy for deployment of high speed Gigabit networking in home or SOHO applications. Providing 10Gbps internal switching fabric, the GSD-503 can handle an extremely large amount of data in a secure topology linking to a backbone or high capacity servers. The GSD-503 provides 2K MAC address table, and offers wire-speed packet transfer performance without risk of packet loss. The high data throughput of the device makes it ideal for most Gigabit environments, especially for the network to be upgraded to a Gigabit environment.

Plug & Play

All RJ-45 copper interfaces of the GSD-503 support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ-45 Category 5, 5e or 6 cables. They support standard auto-MDI/MDI-X feature which can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

2. PRODUCT FEATURES

RJ-45 Interface

- 5-Port 10/100/1000Mbps Gigabit Ethernet
- Complies with IEEE 802.3, 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T
- Supports auto MDI/MDI-X function

Switching

- Hardware based 10/100Mbps, half / full duplex and 1000Mbps full duplex mode, flow control and auto-negotiation
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- Integrated address look-up engine, supporting 2K absolute MAC addresses
- 9K Jumbo packet size
- Power saving ability for Green networking
- Automatic address learning and address aging
- Supports CSMA/CD protocol

Hardware

- Made of metal, desktop size and wall-mount design
- LED indicators for system power, per port 1000 & Link / Act
- 5V DC, 1A external power adapter
- FCC, CE Class B compliant

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Switch ASIC: Realtek RTL8367N x1

3.2 FUNCTION SPECIFICATION

Product	GSD-503
Hardware Specifications	
Hardware Version	7
10/100/1000Base-T Ports	5 auto MDI/MDIX ports
LED Display	One for Power, Two for 1000 & Link / Act per port
Enclosure	Metal
Switch Specifications	
Switch Processing Scheme	Store-and-Forward
Address Table	2K
Flow Control	Back pressure half duplex, IEEE 802.3x pause frame full duplex
Switch Fabric	10Gbps
Throughput (packet per second)	7.44Mpps
Jumbo packet size	9K
Standards Conformance	
Standards Compliance	IEEE 802.3 (Ethernet) IEEE 802.3u (Fast Ethernet) IEEE 802.3ab (Gigabit Ethernet) IEEE 802.3x (Full-duplex Flow Control) IEEE 802.3az Energy Efficient Ethernet (EEE)

3.3 PHYSICAL SPECIFICATIONS:

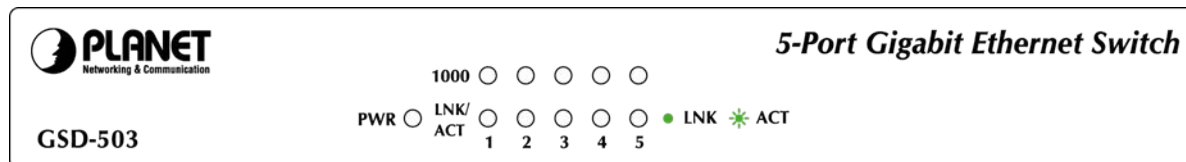
Dimensions:

155 x 86 x 26mm (W x D x H)

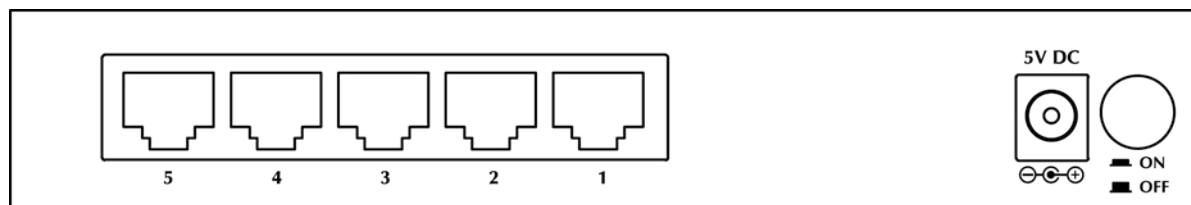
Weight:

317g

Front Panel:



Rear Panel:



LED Definition

System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power. Lights off to indicate that the Switch has no power.

Per 10/100/1000Mbps port

LED	Color	Function
1000	Green	Lit: indicate that the port is operating at 1000Mbps. Off: indicate that the port is operating at 10Mbps or 100Mbps.
LNK/ACT	Green	Lights to indicate the link through that port is successfully established. Blink: indicate 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

Input Voltage:

External Power Adapter: DC 5V / 1A

Power consumption:

■ System on without any devices attached

Input Voltage	110V / 60Hz	220V / 50Hz
Amp	0.013	0.009
Watt	0.7W	1.1W
BTU	2.3BTU	3.7BTU

■ System on and with Full Load

Input Voltage	110V / 60Hz	220V / 50Hz
Amp	0.017	0.012
Watt	0.9W	1.3W
BTU	3.0BTU	4.4BTU

■ System on and with Full Load Operating

Input Voltage	110V / 60Hz	220V / 50Hz
Amp	0.049	0.032
Watt	2.9W	3.3W
BTU	9.8BTU	11BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class B, CE

3.7 REALIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSD-503 x1
- User's Manual x1
- 5V DC, 1A Power Adapter x 1

3.9 PACKING DIMENSION

Dimension: 192mm x 142mm x 85mm (W x D x H)

Weight: TBD

Unit per carton: 15pcs in one carton