

# Product Specifications

5-Port 10/100/1000BASE-T Gigabit Ethernet Switch

**GSD-503**

Version 8.0

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## Change History:

Revision:	Date:	Author:	Change List
Version 8.0	2019/3/5	Marc Liao	Initial Release Chipset replacement from RTL8367N to RTL8367N-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.
Version 6.0	2011/8/18	Marc Liao	Initial Release Chipset replacement from RTL8367-GR to RTL8367-VB.
Version 5.0	2010/9/3	Marc Liao	Initial Release

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## 1. PRODUCT DESCRIPTION



### Optimal Solution for Energy Savings and Gigabit High Performance

PLANET GSD-503 Green Networking Switch is specially designed to meet the current trend for energy savings worldwide. The GSD-503, a 5-port Gigabit Ethernet Switch, brings both benefits of energy savings and Gigabit wire speed performance to home networking, SOHOs and enterprises.

#### Energy Savings

The GSD-503 incorporates two advanced Green Networking technologies and is able to provide power savings of up to 40% 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 use of power based on cable length

Intelligent use of power uses 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 savings 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 savings.

### 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 RJ45 copper interfaces of the GSD-503 support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 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-through or crossover cables.

## 2. PRODUCT FEATURES

### **RJ45 Interface**

- 5 10/100/1000Mbps Gigabit Ethernet ports
- 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 backpressure 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
- One Power on/off button for energy saving
- FCC, CE Class B compliant

### 3. PRODUCT SPECIFICATIONS

#### 3.1 MAIN COMPONENT

Switch ASIC: Realtek RTL8367N-VB x1

#### 3.2 FUNCTION SPECIFICATIONS

<b>Product</b>	<b>GSD-503</b>
<b>Hardware Specifications</b>	
<b>Hardware Version</b>	8
<b>10/100/1000BASE-T Ports</b>	5 auto MDI/MDIX ports
<b>LED Display</b>	One for Power, Two for 1000 & Link / Act per port
<b>Enclosure</b>	Metal
<b>Switch Specifications</b>	
<b>Switch Processing Scheme</b>	Store-and-Forward
<b>Address Table</b>	2K
<b>Flow Control</b>	Back pressure half duplex, IEEE 802.3x pause frame full duplex
<b>Switch Fabric</b>	10Gbps
<b>Throughput (packet per second)</b>	7.44Mpps
<b>Jumbo packet size</b>	9K
<b>Standards Conformance</b>	
<b>Standards Compliance</b>	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:



#### LED Definition

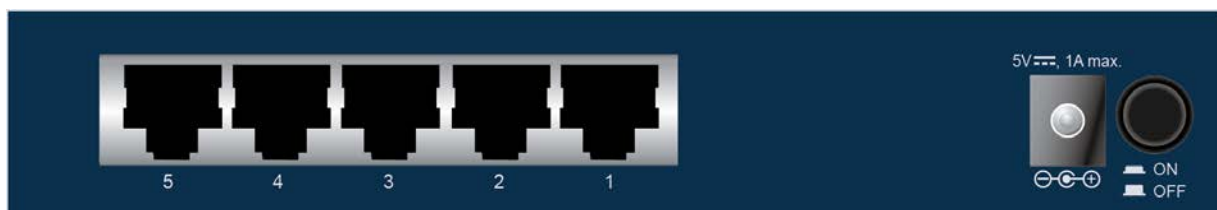
##### System

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	Lights to indicate that the port is operating at 1000Mbps. Off to indicate that the port is operating at 10Mbps or 100Mbps.
LNK/ACT	Green	Lights to indicate the link through that port is successfully established. Blinking to indicate that the Switch is actively sending or receiving data over that port.

#### Rear Panel:



### 3.4 ENVIRONMENTAL SPECIFICATIONS

**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 Loading**

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 Loading**

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 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

### 3.8 BASIC PACKAGING

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

### 3.9 PACKING INFORMATION

<b>Box Dimensions (W x D x H):</b>	202 × 142 × 85 mm
<b>Weight (gross weight):</b>	537g
<b>Carton Dimensions (W x D x H):</b>	450 × 460 × 210 mm
<b>Carton Weight (gross weight):</b>	8.86kg
<b>Quantity:</b>	15pcs in one carton