

Product Specifications

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

GSW-1601

Version 8.0

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Change History:

Revision:	Date:	Author:	Change List
Version 8.0	2019/4/22	Marc Liao	Hardware change - Dimension changed - LED Definition & location /RJ45 port location change
Version 7.0	2016/12/6	Marc Liao	Hardware change - Chipset changed - LED/RJ45 port location change
Version 6.0	2014/9/15	Marc Liao	Hardware change - Chipset changed - Power LED location change
Version 5.0	2012/8/20	Marc Liao	Hardware change - Chipset/ PHY changed - RJ-45 Port & LED location change - Power Supply Unit change - Fan less design
Version 4.0	2009/08/28	Marc Liao	Hardware change - Change chip/ PHY from Marvell to Broadcom - LED indicator change
Version 3.0	2008/06/23	Marc Liao	Hardware change
Version 2.0	2006/08/07	Marc Liao	Hardware change
Version 1.0	2005/05/05	Marc Liao	Initial Release

Author:	Marc Liao	Editor:	Marc Liao
Reviewed By:		Approved By:	Kent Kang

1. PRODUCT DESCRIPTION



Cost-effective Gigabit Solution for Enterprise Backbone and Data Center Networking

PLANET GSW-1601 Gigabit Ethernet Switch provides 16 RJ45 10/100/1000Mbps ports for high-speed network connectivity. It can automatically identify and determine the correct transmission speed and half/full duplex mode of the attached devices with its 16 Gigabit ports that support 9K jumbo frame feature. Therefore, the GSW-1601 can handle extremely large amounts of data transmission in a secure topology linking to a backbone or high-power servers.

High Performance

The GSW-1601 provides a high-performance switch architecture that is capable of providing the non-blocking switch fabric and wire-speed throughput as high as 32Gbps, which greatly simplifies the tasks of upgrading the LAN for catering to increasing bandwidth demands. Besides, the Flow Control function of the GSW-1601 enables routers and servers to directly connect to the Switch for fast and reliable data transfer.

All the RJ45 copper interfaces of the GSW-1601 support 10/100/1000Mbps auto-negotiation for optimal speed detection through RJ45 Category 6, 5 or 5e cables. It also supports standard for auto-MDI/MDI-X that can detect the type of connection to any Ethernet device without requiring special straight or crossover cables.

Excellent Traffic Transmission

The GSW-1601 supports Store-and-Forward forwarding scheme to ensure low latency and high data integrity, which eliminates unnecessary traffic and relieves congestion on critical network paths. With an intelligent address recognition algorithm, the GSW-1601 recognizes up to 8K different MAC addresses. The high data throughput and 32Gbps internal switching fabric make it ideal for most Gigabit environments, especially when network is upgraded to a Gigabit environment.

Fanless Design

With its good ventilation design, the GSW-1601 is able to operate all along without a fan, thus reducing substantial power consumption and creating a noiseless environment. The GSW-1601 is definitely the best choice for any working environment without affecting its performance.

2. PRODUCT FEATURES

▶ **Physical Port**

- 16 10/100/1000BASE-T Gigabit Ethernet ports
- Supports auto MDI/MDI-X function

▶ **Layer 2 Features**

- Complies with IEEE 802.3, 10BASE-T, IEEE 802.3u 100BASE-TX, IEEE 802.3ab 1000BASE-T Ethernet standards
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- Integrated address look-up engine, supporting 8K absolute MAC addresses
- 9K jumbo packet support
- Power saving ability for Green networking
- IEEE 802.1Q VLAN packet transparency support
- IEEE 802.3x flow control for full duplex operation and back pressure for half duplex operation
- Hardware-based 10/100BASE-TX, half/full duplex and 1000BASE-T full duplex mode, flow control and auto-negotiation
- Automatic address learning and address aging
- Supports CSMA/CD protocol

▶ **Hardware Features**

- 100~240V AC, 0.5A, 50~60Hz universal power input
- FCC, CE class A compliant

3. PRODUCT SPECIFICATIONS

3.1 MAIN COMPONENTS

Switch ASIC: Realtek RTL8382L (Built-in 8-Port Gigabit PHY) x 1

PHY: Realtek RTL8218B (8-Port Gigabit Ethernet Transceiver) x 1

LED Board Controller: Realtek RTL8231 x 1

3.2 FUNCTION SPECIFICATIONS

Product	GSW-1601
Hardware Specifications	
Hardware Version	8
10/100/1000BASE-T MDI/MDIX Ports	16
Throughput (packet per second)	23.8Mpps
Switch Fabric	32Gbps
Power Consumption/Dissipation	8.6 watts/29 BTU
Power Requirements	100~240V AC, 0.5A, 50-60Hz
Switch Processing Scheme	Store-and-Forward
Address Table	8K entries
Jumbo Packet Size	9K
Flow Control	Back pressure for half duplex IEEE 802.3x pause frame for full duplex
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:

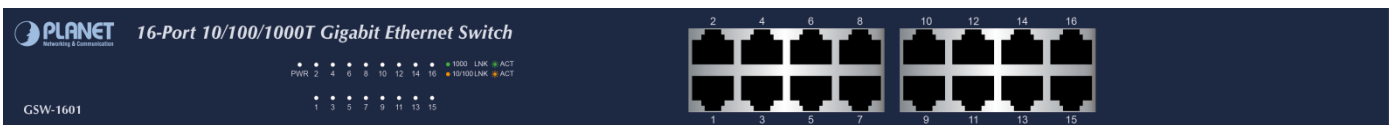
Dimensions:

440 x 210 x 44mm (W x D x H), 1U height

Weight:

1.4kg

Front Panel:



Rear Panel:



LED Definition

System

LED	Color	Function
PWR	Green	Lights to indicate that the Switch has power.

Per 10/100/1000BASE-T Port

LED	Color	Function
10/100 LNK/ACT	Orange	Lights to indicate the link through that port is established successfully at 10/100Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.
1000 LNK/ACT	Green	Lights to indicate the link through that port is established successfully at 1000Mbps. Blinks to indicate that the Switch is actively sending or receiving data over that port.

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:	100~240V AC, 50/60Hz, 0.5A (max.)	
Power Consumption (System on):	110V: 2.53 watts	8.6BTU
	220V: 2.66 watts	9BTU
Power Consumption (Ethernet Full Load Operation):	110V: 8.45 watts	28.8BTU
	220V: 8.58 watts	29.2BTU

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degrees C

3.8 BASIC PACKAGING

- GSW-1601 x 1
- User's Manual x 1
- Power Cord x 1
- Rubber Feet x 4
- Two Rack-Mounting Brackets with Attachment Screws x 8

3.9 PACKING INFORMATION

Box Dimensions (W x D x H):	555 x 295 x 88 mm
Gross Weight:	2.75kg
Carton Dimensions (W x D x H):	572 x 370 x 315 mm
Total Weight:	13.1kg
Quantity:	4pcs per carton