Marshall Electronics

VS-SW-100

Gigabit Ethernet Switch with PoE+

10/100/1000Mbps with LED Display

User Manual

Firmware Version v0.2

FCC Warning

This device has been tested and found to comply with limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates and radiates radio frequency energy and, if not installed and used in accordance with the user's manual, it may cause interference in which case users will be required to correct interference at their own expenses.

CE Warning

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

1. Connectivity

2. Connectivity

This switch provides 24 10/100/1000M switching ports RJ45 and 2 port SFP. It was designed for easy installation and high performance in an environment where traffic is on the network and the number of users increases continuously.
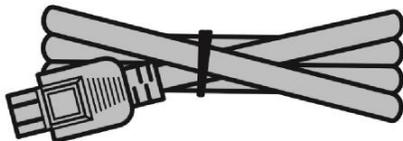
It consists of 24 PSE/PoE ports that can solve the limitation of the power outlet location and offer the system designer a flexible solution to locate the network device everywhere.

The 19" chassis size is specifically designed for small to medium work groups. It can be installed where space is limited and provide smooth network migration and an easy upgrade to the network capacity.

1.1 Package Contents

Before you start to install this switch, please verify that your package that contains the following items:
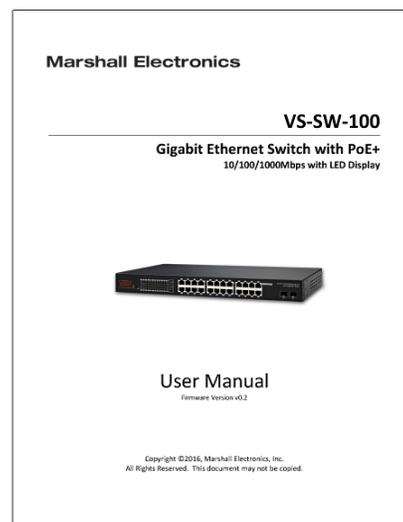
● One Gigabit PoE Switch
● One Power Cord
● One User's Manual

Power Cord

24 Port Switch

User's Manual

2. Connectivity

1.2   Product Features

- 24 Port PSE/ PoE function, compliant with IEEE-802.3af class3 /class 2 / class 1 and IEEE802.3at
- Supports the power up to 30 watts for each PSE/PoE port
- Provides 24 ports 10/100/1000Mbps switching ports
- Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE-802.3af PoE and IEEE802.3at
- Supports the flow control: back pressure for half-duplex and IEEE 802.3x for full-duplex mode
- All ports support Auto-MDIX function
- Provides 2000Mbps Full-duplex bandwidth to the each port
- Broadcast storm control and supporting store & forward operation
- Non-blocking & non-head-of-line blocking full-wire speed forwarding
- Auto-learning networking configurations
- Built-in 8K MAC learning table, 1.25M bits buffer memory
- Filtering/Forwarding Rate:1000Mbps/1,488,000pps; 100Mbps/148,800pps; 10Mbps/14,880pps
- Supports packet length 1600 bytes
- Status LEDs: System Power, Link/Activity, and PoE/PSE on line
- PoE LED Display: total power (P); Less power (L) per port/ power consumption (port 1~16) / power consumption
- Network Transmission Media: 10Base-T Cat. 3, 4, 5 UTP/STP; 100Base-TX Cat. 5, 5e UTP/STP; 1000BASE-T Cat. 5e, 6 UTP/STP.
- Internal Power supply: AC input (90~260V/AC, 50~60Hz)
- Operating Temperature: 0° ~ 40°C
- Storing Temperature: -20° ~ 90°C
- Humidity: 10% ~90% RH (non-condensing)
- Dimension (L x W x H): 440 x 326 x 44mm (19", 1U high)
- Power consumption: 20 watt
- PoE power supply: 800 watt
- Power supply: 960 watt
- Weight: 5.5 kg
- Certificates: CE & FCC
- Smart plug & play

2. Connectivity

2.1 Front Panel (LEDs)

LED Indicators: 16 Ports with 16 Port PoE 10/100/1000M

LED	Status	Description
Power	Yellow	Power is on.
	Nil	Power is off.
LINK/ACT	Green	Port is for connection.
	Off	No connection.
	Green and Flashing	Data is transmitting or receiving.
PoE	Yellow	Port is linked to power device.
	Off	No power device is connected.

4-Digit Seven-Segment-Display

- Press "select" button once to show "P" (1 digit) for total PoE power (3 digits)
- Press "select" button twice to show "L" (1 digit) for remaining PoE power (3 digits)
- Press "select" button three times to show port number (2 digits) and power consumption per port (2 digits)

2.2 Connecting Power Device

.
Connect Power Device to the 16 Port PoE 10/100/1000M Switch to receive 48V power source through Cat. 5 cables

Use a Cat. 5 twisted-pair cable to connect a Power Device to the port 1~16 of this switch. This switch will supply 48V power to a Power Device over Cat. 5 twisted-pair cable. **Please Note:** Power Device should also comply with IEEE 802.3af.

2. Connectivity

2.3   Rear Panel (Power)
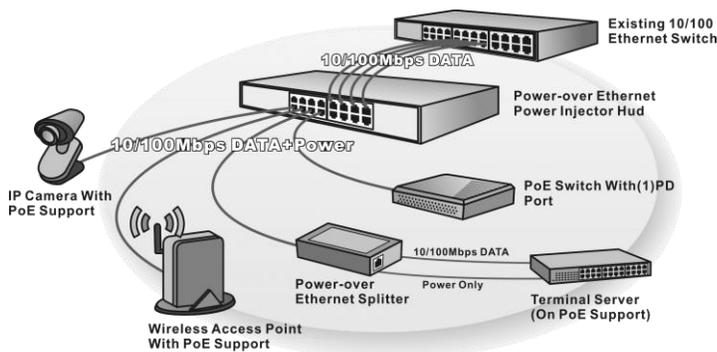
AC Input
AC input (100~240V/AC, 50~60Hz)

2.4   Connections

1) Switch/Hub: Connection to PoE 10/100/1000M Switch

This switch provides automatic crossover detection functionality for any port. It is simple and friendly to link to another switch without a crossover cable.

2) PC/Other Devices: Connection to 16 Port PoE 10/100/1000M Switch

This switch can be connected to PCs, servers and other network devices via a twisted pair cable.

2.   Data Sheet

3.1   Data Sheet: Features

Rackmount Ears Included

The **VS-SW-100** is a 26-port 10/100/1000Mbps Power over Ethernet switch which consists of 24 PSE/PoE ports with an additional 2 SFP uplink port.
The VS-SW-100 has been designed specifically for use with IP Cameras, Encoders and Decoders. It is compliant with PoE IEEE 802.3af/802.3at. Each 24 PSE/PoE ports can concurrently supply up to 30 Watts of Power per Port (PoE+). This avoids the use of Multiple Power Supplies and makes System Installation a snap. Supporting 24 PTZ IP Cameras from One Power Outlet makes this an Efficient and Environmentally Friendly Solution.

• Complies with IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3x Flow control, IEEE-802.3af/at
• Supports power of up to 30 watt for each PSE/PoE port
• Provides 24 10/100/1000Mbps switching ports and 2* Gigabit SFP ports
• All ports support Auto-MDIX function
• Dedicated 2000Mbps full-duplex bandwidth to the each port
• Broadcast storm control supporting store & forward operation
• Non-blocking & non-head-of-line blocking full-wire speed forwarding
• Auto-learning networking configurations
• Built-in 8K MAC learning table, 1.25M bits buffer memory
• Supports packet length up to 1536Bytes
• Filtering/Forwarding Rate: 1000Mbps/1,488,000pps; 100Mbps/148,800pps; 10Mbps/14,880pps
• Status LEDs: System Power, Link/Activity, and PoE/PSE on line
• Transmission Media: 10Base-T Cat.3, 4, 5 UTP/STP; 100Base-TX Cat.5, 5e UTP/STP; 1000BASE-T Cat.5e, 6 UTP/STP

VS-SW-100 Advanced PoE Management and Measurement

This shows Port 16 drawing 14 Watts

P800 - PoE Budget

L770 - PoE Available (Example 770 Watts Left)

By pressing the "Select" Button you can scroll through the PoE Power Consumption of each Port as well as see the PoE Budget (P) and the PoE Available Power (L).

3.   Data Sheet

3.2   Data Sheet: Technical Specifications

Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-SX/LX IEEE 802.1x / IEEE 802.3af/at
Features	Number of Ports: 2410/100/1000Base-T with RJ-45 Connector 24 PSE ports with RJ-45 Connector 2 Gigabit SFP slot
Data Transfer Rate	**Ethernet:** 10Mbps/Half-Duplex 20Mbps/Full-Duplex **Fast Ethernet:** 100Mbps/Half-Duplex 200Mbps/Full-Duplex **Gigabit Ethernet:** 2000Mbps/Full-Duplex
Transmission Media	10BaseT Cat. 3, 4, 5 UTP/STP, up to 100 m 100BaseTX Cat. 5, 5e UTP/STP, up to 100 m 1000BaseT Cat. 5e, 6 UTP, up to 100m
LED Indicators	**Per Port:** **(TX):** Link/Act, PoE Consumption **Per Unit:** Power Used /Available
Power Requirement	AC input (100-240V/AC, 50/60Hz), UL Safety
Power supply	960Watt (PoE Budget 800W)
Dimensions	443 x 326 x 44 mm (L x W x H)
Weight	5.5 kg
Operating Temperature	0 to 40°C
Storage Temperature	-20 to 90°C
Humidity	10 to 90% RH, Non-condensing
Certifications	FCC, CE

For Warranty information please refer to Marshall website page:

https://marshall-usa.com/company/warranty.php

Marshall Electronics, Inc.

1910 East Maple Ave. El Segundo, CA 90245

Tel: (800) 800-6608 / (310) 333-0606 • Fax (310) 333-0688

www.LCDRacks.com • sales@lcdracks.com