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Quick Install Guide

16-Port 10/100Mbps Ethernet Web Smart Switch
with 8-Port PoE

SPE1016E8



Contents

1: Introduction	1
Features	1
Packaging Content.....	2
2: Let's Get Going-Hardware Setup	3
Installation	3
Rack Mounting.....	4
Connecting Network Cable.....	5
AC Power.....	5
3: Accessing to web-based interface	6
4: Panel Views and Descriptions	8
Front Panel	8
Rear Panel	9
5: Technical Specifications	10
Warranty Registration Card	26

1: Introduction

This chapter describes the features of the 16-Port 10/100Mbps Ethernet Web Smart Switch with 8-Port PoE.

Features

- ◆ 16×10/100Mbps Auto-negotiation Fast Ethernet RJ45 ports with 8-port PoE function (port-1 ~ port-8)
- ◆ Compliant with IEEE 802.3af specification
- ◆ Supports PoE power maximum 15.4W for each PoE ports
- ◆ Supports PoE Powered Device (PD) classification identify
- ◆ Each port supports auto MDI/MDIX, so there is no need to use cross-over cables or an up-link port
- ◆ Full/half duplex transfer mode for each port
- ◆ Wire speed reception and transmission
- ◆ Store-and-Forward switching scheme capability to support rate adaptation and ensure data integrity
- ◆ Up to 4K unicast addresses entities per device, self-learning, and table aging
- ◆ 512KBytes packet buffer
- ◆ Supports IEEE 802.3x flow control for full-duplex mode ports
- ◆ Supports Back-pressure flow control for half-duplex mode ports
- ◆ Supports 802.1Q VLAN
- ◆ Supports Port based QoS and IEEE 802.1p based QoS
- ◆ Supports Port based Trunking
- ◆ Supports Port-mirroring
- ◆ Supports Port-setting for Speed/Disable, Flow control
- ◆ Support Port based bandwidth rate control (Ingress rate and Egress rate)
- ◆ Easy configuration via WEB Browser
- ◆ Easy setting via Web Management Utility
- ◆ Standard 19" Rack-mount size

Packaging Content

Open the shipping cartons of the Switch and carefully unpacks its contents. The carton should contain the following items:

- ◆ One 16-Port 10/100Mbps Ethernet Web Smart Switch with 8-Port PoE
- ◆ One AC power cord, suitable for your area's electrical power connections
- ◆ Four rubber feet to be used for shock cushioning
- ◆ Screws and two mounting brackets
- ◆ CD-Rom with Web Management Utility and User's Guide

If any item is found missing or damaged, please contact your local reseller for replacement.

2: Let's Get Going-Hardware Setup

This chapter provides installation information for the Switch.

Installation

The site where you install the hub stack may greatly affect its performance. When installing, consider the following pointers:

Install the Switch in a fairly cool and dry place. See *Technical Specifications* for the acceptable temperature and humidity operating ranges.

Install the Switch in a site free from strong electromagnetic field generators (such as motors), vibration, dust, and direct exposure to sunlight.

Leave at least 10cm of space at the front and rear of the hub for ventilation.

Install the Switch on a sturdy, level surface that can support its weight, or in an EIA standard-size equipment rack. For information on rack installation, see the next section, Rack Mounting.

When installing the Switch on a level surface, attach the rubber feet to the bottom of each device. The rubber feet cushion the hub and protect the hub case from scratching.

Rack Mounting

The switch can be mounted in an EIA standard-size, 19-inch rack, which can be placed in a wiring closet with other equipment. Attach the mounting brackets at the switch's front panel (one on each side), and secure them with the provided screws.



Figure 1. Combine the Switch with the provided screws

Then, use screws provided with the equipment rack to mount each switch in the rack.



Figure 2. Mount the Switch in the rack

Connecting Network Cable

The Switch support 16 10/100M Ethernet ports and Port 1 ~ port 8 are PoE Enable ports, these PoE port will automatically activated when a compatible terminal is identified, the Switch will supply power through the Ethernet port to the connected PoE device.

For the Legacy devices that are not yet compatible, the PoE port will not offer the power to this device. This feature allows users to freely and safely mix legacy and Power over LAN compatible devices on their network.

The Switch supports 10Mbps Ethernet or 100Mbps Fast Ethernet and it runs both in half and full duplex mode using two pair of Category 5 cable.

These RJ45 ports are Auto-MDI type port. The Switch can auto transform to MDI-II or MDI-X type, so you can just make an easy connection that without worrying if you are using a standard or crossover RJ45 cable.

AC Power

The Switch used the AC power supply 100-240V AC, 50-60 Hz. The power switch is located at the rear of the unit adjacent to the AC power connector and the system fan. The switch's power supply will adjust to the local power source automatically and may be turned on without having any or all LAN segment ca

3: Accessing to web-based interface

Before you configure this device, note that when the Web Smart Switch is configured through an Ethernet connection, make sure the manager PC must be set on same the **IP network**. For example, when the default network address of the default IP address of the Web Smart Switch is **192.168.0.1**, then the manager PC should be set at 192.168.0.x (where x is a number between 2 and 254), and the default subnet mask is 255.255.255.0.

Open Internet Explorer 5.0 or above Web browser.

Enter IP address <http://192.168.0.1> (the factory-default IP address setting) to the address location.



Figure 12.

Or through the Web Management Utility, you do not need to remember the IP Address, select the device shown in the Monitor List of the Web Management Utility to settle the device on the Web Browser.

When the following dialog page appears, remain enter the default password **"admin"** and press Login to enter the main configuration window.



The image shows a 'Login' dialog box with a blue header. It contains the following text: 'System Name :', 'Location Name :', 'IP Address : 192.168.0.1', and 'MAC Address : 00-11-22-33-44-55'. Below this text is a text input field labeled 'password' and a 'Login' button.

Figure 13.

After entering the password, the main page comes up, the screen will display the device status.



The image shows the main configuration page for a '16-Port 10/100Mbps Ethernet Smart Switch with 8-Port PoE'. On the left is a yellow sidebar with a navigation menu. The main content area is grey and features a 'Login' dialog box in the center. The dialog box contains: 'System Name : P0E', 'Location Name : P0E', 'IP Address : 172.16.5.129', and 'MAC Address : 00-1D-85-09-99-43'. Below the dialog box is a footer note: 'This page is best viewed at 1024x768 with Internet Explorer 5.5+ or Netscape 6.0+'.

- Setup
 - Port
 - VLAN
 - Trunking
 - Mirror
 - QoS
 - PoE
- Maintenance
 - Status
 - Statistics
 - System
 - Log
 - Command
 - Backup Setting
 - Reset Setting
- Logout

Figure 14. Device Status

4: Panel Views and Descriptions

This chapter describes the front panel, rear panel, and LED indicators of the Switch.

Front Panel

The figure below shows the front panels of the Switch.



Figure 3. Front panel of 16-port Gigabit Ethernet Switch with 8-port PoE

LED Indicator:

Comprehensive LED indicators display the status of the switch and the network (see the LED Indicators chapter in User Manual).

PoE Ports (Port 1~8):

These ports are PoE Enable ports, the PoE port will automatically activated when a compatible terminal is identified, the Switch will supply power through the Ethernet port to the connected PoE device.

For the Legacy devices that are not yet compatible, the PoE port will not offer the power to this device. This feature allows users to freely and safely mix legacy and Power over LAN compatible devices on their network.

These ports support network speeds of either 10Mbps or 100Mbps, and can operate in half- and full- duplex transfer modes. These ports also supports automatic MDI/MDIX crossover detection function gives true “plug and play” capability, just need to plug-in the network cable to the hub directly and don’t care if the end node is NIC (Network Interface Card) or switch and hub.

Ethernet Ports (Port 9~16):

These ports support network speeds of either 10Mbps or 100Mbps, and can operate in half- and full- duplex transfer modes. These ports also supports automatic MDI/MDIX crossover detection function gives true “plug and play” capability, just need to plug-in the network cable to the hub directly and don’t care if the end node is NIC (Network Interface Card) or switch and hub

Note: *When the port was set to “Forced Mode”, the Auto MDI/MDIX will be disabled.*

Rear Panel

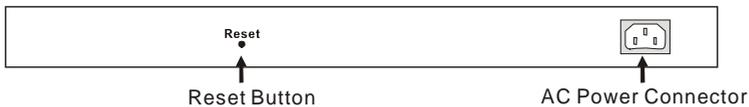


Figure 4. Rear panel of the Switch

AC Power Connector:

This is a three-pronged connector that supports the power cord. Plug in the female connector of the provided power cord into this connector, and the male into a power outlet. Supported input voltages range from 100-240V AC at 50-60Hz.

Reset:

The Reset button is to reset all the setting back to the factory default.

Note: *Be sure that you recorded the setting of your device, else all the setting will be erased when pressing the “Reset” button.*

5: Technical Specifications

Network Protocol, Standards and Electrical Emissions	
Standards	IEEE 802.3 10BASE-T Ethernet IEEE 802.3u 100BASE-TX Fast Ethernet IEEE 802.3x Full Duplex Flow Control IEEE 802.3af compliant
Protocol	CSMA/CD
Data Transfer Rate	Ethernet: 10Mbps (half duplex), 20Mbps (full-duplex) Fast Ethernet: 100Mbps (half duplex), 200Mbps (full-duplex)
Topology	Star
Network Cables	10BASE-T: 2-pair UTP Cat. 3, 4, 5; up to 100m 100BASE-TX: 2-pair UTP Cat. 5; up to 100m
Number of Ports	8 x 10/100M PoE Ethernet ports (port 1 ~ port 8) 8 x 10/100M Ethernet ports (port 9 ~ port 16)

Power over Ethernet	
Standard	IEEE 802.3af
Power current	Up to 15.4W per port
PD Classification	Auto PD classification identify
PoE pin assignment (Supports Compex WP54G and WPP54G)	Power (+): pin 3 & pin 6 in RJ45 Power (-): pin 1 & pin 2 in RJ-45 No Power: pin 4 & pin 5 & pin 7 & pin 8 in RJ-45
Safety protection	Over current protect Circuit shortage protect

Physical and Environment

AC inputs	100-240V AC, 50-60 Hz internal universal power supply
Power Consumption	9Watts (max. no PD Device connected) 130Watts (max. with 8 x 15.4 w PoE Device connected)
Temperature	Operating: 0° ~ 40° C, Storage: -10° ~ 70° C
Humidity	Operating: 10% ~ 90%, Storage: 5% ~ 90%
Dimensions	440 x 140 x 44 mm (W x H x D)
EMI:	FCC Class A, CE Mark Class A, VCCI Class A
Safety:	cUL(UL60950), CB(IEC60950)

Performance

Transmits Method:	Store-and-forward
Filtering Address Table:	4K entries per device
Packet Filtering/Forwarding Rate:	10Mbps Ethernet: 14,880/pps 100Mbps Fast Ethernet: 148,800/pps
MAC Address Learning:	Automatic update
Transmit Method:	Store-and-forward
RAM Buffer:	512K bytes per device

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Reorient or relocate the receiving antenna.	Increase the separation between the computer and receiver.			
Connect the computer into an outlet on a circuit different from that to which the receiver is connected.	Consult the dealer or an experienced radio/TV technician for help.			
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