MICROSENS

Gigabit Ethernet Switch

Quick Installation Guide

MS453514M

Version 1.0

Table of Contents

1. Introduction

1.1 Overview

This user guide describes how to install, configure, and troubleshoot the MS453514M, 6 Port Gigabit Ethernet (GBE) Switch.

By reading this user guide, users can perform the following tasks:

- To check the switch status by reading the LED behavior
- To reset the switch or to restore the switch to factory defaults
- To install the switch
- To use a Web browser to initially configure the switch
- To troubleshoot the switch

1.2 Front View of the Switch

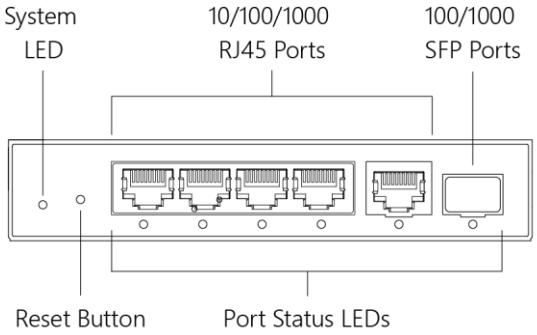

Figure 1: Front panel of the switch

1.3 Rear View of the Switch

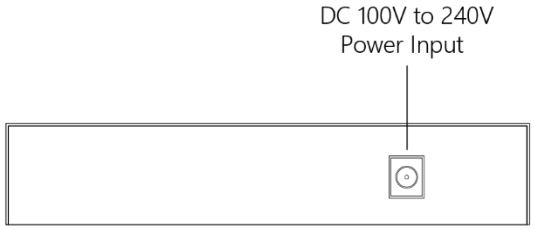

Figure 2: Rear panel of the switch

1.4 LED Descriptions

The LEDs on the front panel provide users with switch status checking and monitoring. There are three types of LEDs as follows:

- **System LED** indicates if the switch is powered up correctly or not.
- **Port Status LEDs** indicates the current status of each port. Users can check these LEDs to understand the port status.

The following tables detail the functions and descriptions of various LED indicators.

LED	Color	State	Description
System	Green	On	The switch is powered ON correctly.
		Off	The switch is not receiving power.

Table 1: System LED

LED	Color	State	Description
RJ45 Ports	Green	On	The port is enabled and established a link to connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and established a link to connected device, and the connection speed is 10/100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 10/100Mbps.
	--	Off	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch user interface.
SFP Ports	Green	On	The port is enabled and established a link to connected device, and the connection speed is 1000Mbps.
	Green	Blinking	The port is transmitting/receiving packets, and the connection speed is 1000Mbps.
	Amber	On	The port is enabled and established a link to connected device, and the connection speed is 100Mbps.
	Amber	Blinking	The port is transmitting/receiving packets, and the connection speed is 100Mbps.
	--	Off	The port has no active network cable connected, or it is not established a link to connected device. Otherwise, the port may have been disabled through the switch user interface.

Table 2: Port Status LEDs

1.5 Reset Button

By pressing the reset button for certain period of time, users can perform the following tasks.

- **Reset the Switch** to reboot and get the switch back to the previous configuration settings saved.
- **Restore the Switch to Factory Defaults** to restore the original factory default settings back to the switch.

Note: According to the table below, users can easily judge which task is being performed by reading the LED behaviors while pressing the reset button**. Once the LED behaviors are correctly displayed, users may just release the button.**

Task to be Performed	Time Period of Pressing Button	SYS LED Behavior	Port Status LED Behavior
Reset the switch	2 ~ 7 seconds	Blinking green	ALL LEDs light OFF
Restore to defaults	7 ~ 12 seconds	Blinking green	ALL LEDs stay ON

Table 3: Mode/Reset Button Descriptions

2. Installing the Switch

2.1 Package Contents

- The switch
- DC adapter
- Four adhesive rubber feet
- Installation guide

Note: The switch is an indoor device. If it is to be used with outdoor devices such as outdoor IP cameras or outdoor WiFi APs, then users are strongly suggested to install a surge protector or surge suppressor in order to protect the switch.

2.2 Mounting the Switch on Wall

Step 1: stall user-supplied screws on the appropriate location on the all, and be aware of the dimensional limitation of the screws.

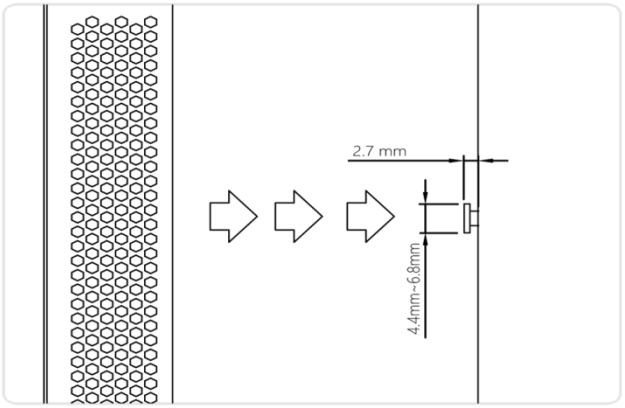

Figure 3: Install screws to the wall

Step 2: make sure that the switch is attached securely to wall.

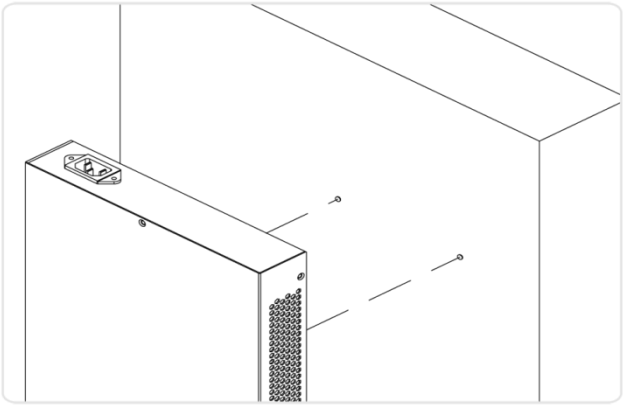

Figure 4: Attaching switch to the wall

2.3 Mounting the Switch on Desk or Shelf

Step 1: Verify that the workbench is sturdy and reliably grounded.

Step 2: Attach the four adhesive rubber feet to the bottom of the switch.

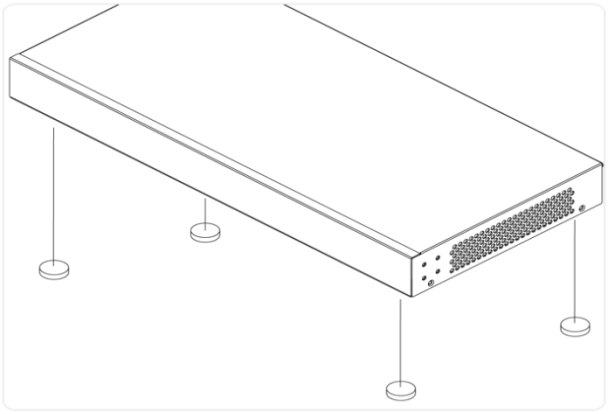

Figure 5: Attaching the Rubber Feet

2.4 Connecting the DC Adapter

Step 1: Connect the DC Adapter to switch.

Step 2: Check the SYS LED. If it is ON, the power connection is correct.

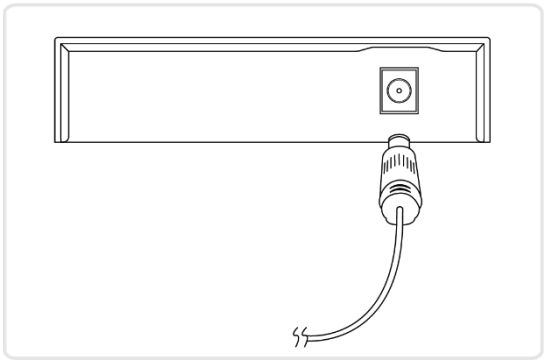

Figure 6: Connecting DC Adapter

2.5 Installing SFP Modules

You can install or remove a SFP module without having to power off the switch.

Step 1: Insert the module into the SFP port.

Step 2: Press firmly to ensure that the module seats into the connector.

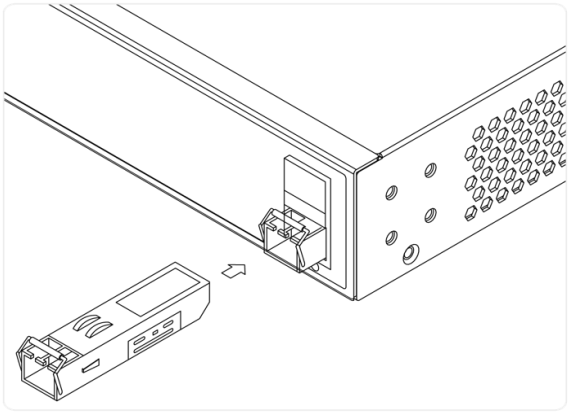

Figure 7: Installing a SFP Module into a SFP Port

WARNING: Infrared radiation as used for data transmission within the fiber optic, although invisible to the human eye, can nevertheless cause damage.

To avoid damage to the eyes:

- never look straight into the output of fiber optic components – danger of blinding!
- cover all unused optical connections with caps.
- commission the transmission link only after completing all connections.

3. Initial Configuration of Switch

3.1 Initial Switch Configuration Using Web Browsers

After powering up the switch for the first time, you can perform the initial switch configuration using a web browser. For managing other switch features, please refer to the Web interface user guide for details.

To begin with the initial configuration stage, you need to reconfigure your PC's IP address and subnet mask so as to make sure the PC can communicate with the switch. After changing PC's IP address (for example, 192.168.1.250), then you can access the Web interface of the switch using the switch's default IP address as shown below.

The initial switch configurations are as follows:

IP address:	**192.168.1.1**
Subnet mask:	**255.255.255.0**
Gateway:	**192.168.1.254**
Login:	**admin**
Password:	**admin**

3.2 Initial Switch Configuration Procedure

The initial switch configuration procedure is as follows:

1. Power up the PC that you will use for the initial configuration. Please make sure the PC has the Ethernet RJ45 connector to be connected to the switch via standard Ethernet LAN cable.
2. Reconfigure the PC's IP address and subnet mask as below, so that it can communicate with the switch. The method to change the PC's IP address, for example, for a PC running Windows® 7/8.x/10, is as follows:

   Step 1: Type "*network and sharing*" into the **Search box** in the **Start Menu**

   Step 2: Select **Network and Sharing Center**

   Step 3: Click on **Change adapter settings** on the left of PC screen

   Note: Users can also skip step 1 to 3, by pressing **WinKey+R** and type "ncpa.cpl" command to get to step 4 directly.

   Step 4: Right-click on your local adapter and select **Properties**

   Step 5: In the **Local Area Connection Properties** window highlight **Internet Protocol Version 4 (TCP/IPv4)** then click the **Properties** button.

   Note: Be sure to record all your PC's current IP settings to be able to restore them later.

   Step 6: Select the radio button **Use the following IP address** and enter in the IP for the PC (e.g. any IP address not in use, and in between *192.168.1.2* and *192.168.1.254*), Subnet mask (e.g. *255.255.255.0*), and Default gateway that corresponds with your network setup. Then enter your preferred and Alternate DNS server addresses.

Step 7: Click **OK** to change the PC's IP address.

3. Power up the switch to be initially configured, and wait until it has finished its start-up processes.
4. Connect the PC to any port on the switch using a standard Ethernet cable, and check the port LED on the switch to make sure the link status of the PC's is OK.
5. Run your Web browser on the PC; enter the factory default IP address, to access the switch's Web interface.

If your PC is configured correctly, you will see the login page of the switch as shown by Figure 9 below.

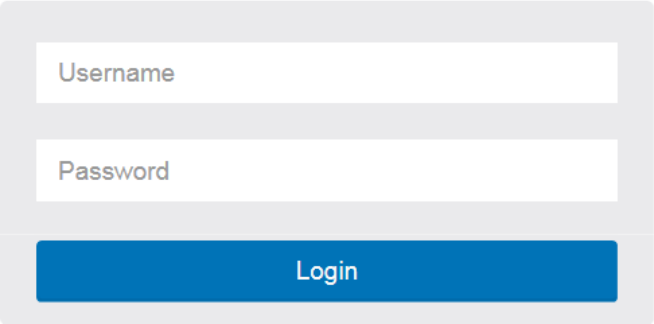

Figure 8: Web Interface login page

If you do not see the above login page, please perform the following steps:

- Refresh the web page.
- Check to see if there is an IP conflict issue.
- Clean browser cookies and temporary internet files.
- Check your PC settings again and repeat step 2.

6. Enter the factory default username and password in login page.

   Click "Login" to log into the switch.

4. Troubleshooting

The following table provides information for users to easily troubleshoot problems by taking actions based on the suggested solutions within.

Symptoms	Possible Causes	Suggested Solutions
SYSTEM LED is Off	The switch is not receiving power.	1. Check if correct power cord is connected firmly to the switch and to the AC outlet socket. 2. Perform power cycling the switch by unplugging and plugging the power cord back into the switch. 3. If the LED is still off, try to plug power cord into different AC outlet socket to make sure correct AC source is supplied.
Port Status LED is Off	The port is not connected or the connection is not working.	1. Check if the cable connector plug is firmly inserted and locked into the port at both the switch and the connected device. 2. Make sure the connected device is up and running correctly. 3. If the symptom still exists, try different cable or different port, in order to identify if it is related to the cable or specific port. 4. Check if the port is disabled in the configuration settings via WEB user interface.

Table 4: Troubleshooting Table

sh MS453514M_QIQ_EN_v1.0