MokerLink 8x10G SFP+ Managed

MokerLink 8 Port 10G SFP+ Managed Fiber Switch User Manual

Model: 8x10G SFP+ Managed

1. Introduction

This manual provides comprehensive instructions for the installation, configuration, operation, and maintenance of your MokerLink 8 Port 10G SFP+ Managed Fiber Switch. This device is designed to provide high-speed network connectivity with advanced Layer 2 and Layer 3 management capabilities, suitable for various network environments including home, enterprise, and data center applications.

2. Product Overview

The MokerLink 8 Port 10G SFP+ Managed Fiber Switch features eight 10Gbps SFP+ slots, supporting both 1G and 10G SFP modules. It offers robust Layer 3 management via Web and Command Line Interface (CLI), with a 160Gbps bandwidth for efficient data transfer.

Figure 2.1: MokerLink 8 Port 10G SFP+ Managed Fiber Switch, front-top view.

Key Features:

- **8x 10Gbps SFP+ Slots:** Supports 1G/10G SFP modules for flexible fiber connectivity.

- **L3 Web/CLI Managed:** Comprehensive Layer 2 and Layer 3 management features including VLAN, ACL, QoS, Routing, and security protocols.
- **High Bandwidth:** 160Gbps switching capacity for high-performance network environments.
- **Durable Design:** Metal casing for enhanced durability and efficient heat dissipation.
- **Flexible Installation:** Supports desktop and rackmount deployment.

Figure 2.2: MokerLink 8 Port 10G SFP+ Managed Fiber Switch highlighting key features.

Front Panel Layout:

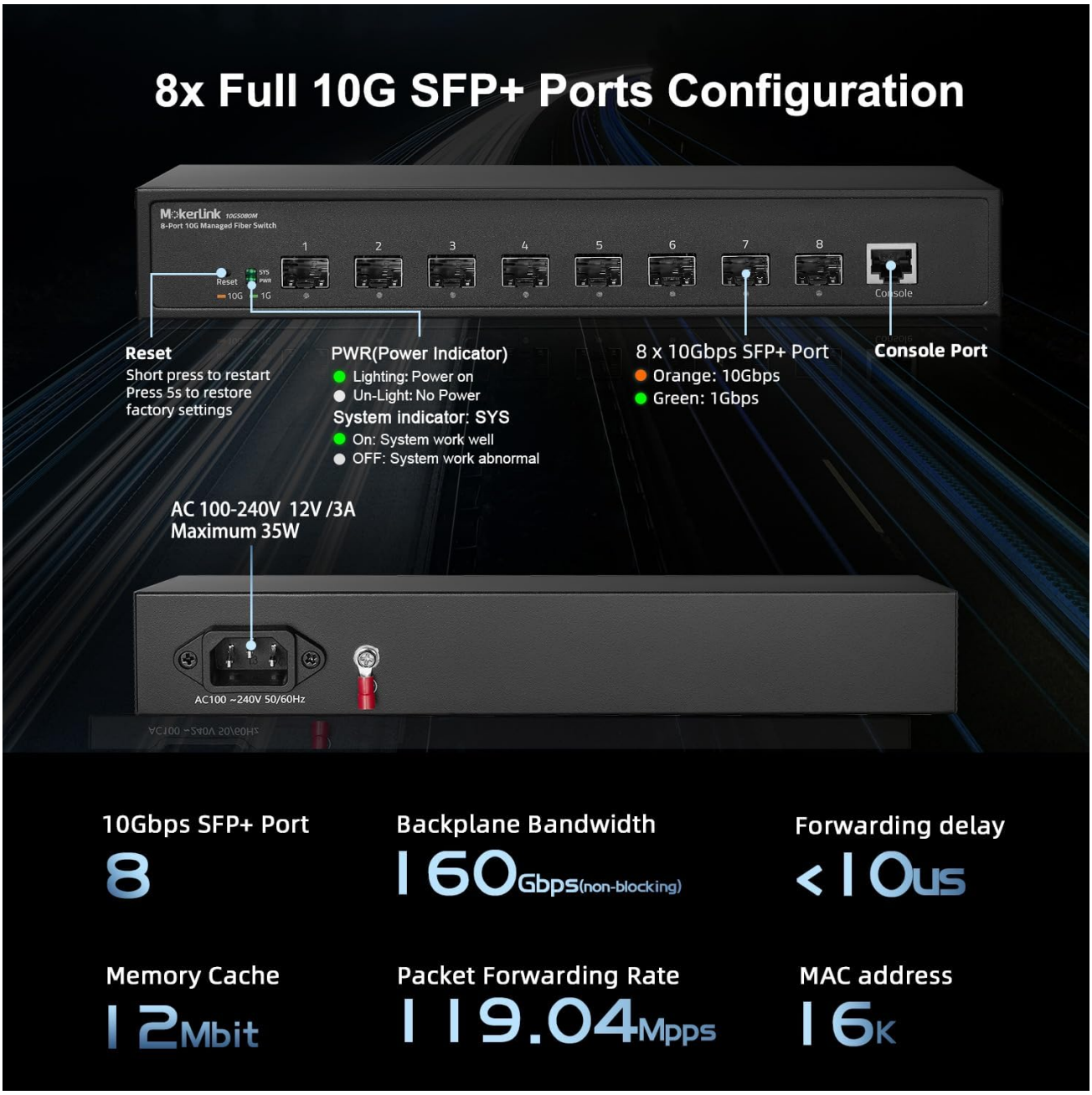

Figure 2.3: Front and Rear Panel Overview with Specifications.

- **Reset Button:** Short press to restart. Press and hold for >5 seconds to restore factory settings.
- **PWR (Power Indicator):** Lighting indicates power on. Un-Light indicates no power.
- **SYS (System Indicator):** On indicates system working well. Off indicates system abnormal.
- **10G/1G LED Indicators:** Orange for 10Gbps, Green for 1Gbps.
- **8x 10Gbps SFP+ Ports:** For SFP/SFP+ module insertion.
- **Console Port:** For CLI management access.

3. Setup

3.1 Package Contents

Verify that your package contains the following items:

- MokerLink 10G SFP+ Managed Switch
- Power Adapter
- Rackmount Brackets (if applicable)

- Screws
- User Manual (this document)

3.2 Physical Installation

The switch can be installed on a desktop or mounted in a standard 19-inch equipment rack. Ensure adequate ventilation around the device.

Figure 3.1: Rackmount and Wall-Mount Installation Options.

Desktop Installation:

Place the switch on a flat, stable surface. Ensure there is sufficient space for airflow around the device, especially near the ventilation openings.

Rackmount Installation:

1. Attach the provided rackmount brackets to the sides of the switch using the included screws.
2. Secure the switch into a standard 19-inch equipment rack using appropriate rack screws (not included).

3.3 Power Connection

Connect the power adapter to the switch's power input port and then plug the adapter into a standard AC power outlet (AC 100-240V, 50/60Hz). The PWR LED indicator will illuminate when power is supplied.

3.4 SFP+ Module Installation

The switch supports standard 1G and 10G SFP/SFP+ modules. These modules are not included with the switch.

Figure 3.2: Adaptive 1G/10G Optical Fiber Modules.

1. Carefully insert the SFP/SFP+ module into an available SFP+ slot until it clicks into place.
2. Connect the appropriate fiber optic cable to the installed SFP/SFP+ module.
3. Observe the 10G or 1G LED indicator for the corresponding port to confirm link status.

3.5 Initial Network Connection

Connect your network devices (servers, workstations, other switches) to the SFP+ ports using compatible fiber optic cables and SFP/SFP+ modules. The switch will automatically detect the link speed (1G or 10G).

4. Operating Instructions

The MokerLink switch offers flexible management options via a web-based graphical user interface (GUI) or a Command Line Interface (CLI).

4.1 Accessing the Management Interface

Web Interface:

1. Ensure your computer is connected to the switch and configured with an IP address in the same subnet as the switch (e.g., if the switch is 192.168.2.1, set your computer to 192.168.2.x, where x is not 1).
2. Open a web browser and enter the default IP address of the switch:**192.168.2.1**
3. Enter the default login credentials: **Username: admin**, **Password: admin**.
4. Upon successful login, you will access the web management interface.

Command Line Interface (CLI):

The CLI can be accessed via the console port, Telnet, or SSH.

- **Console Port:** Connect a console cable (RJ45 to DB9 or USB) from your computer to the switch's console port. Use a terminal emulator (e.g., PuTTY) with appropriate settings (e.g., 115200 baud rate, 8 data bits, no parity, 1 stop bit).
- **Telnet/SSH:** From a computer on the same network, use a Telnet or SSH client to connect to the switch's IP address (default 192.168.2.1) using the default credentials.

Figure 4.1: Web and CLI Management Interfaces.

4.2 Basic Configuration

The switch supports a wide range of Layer 2 and Layer 3 features. Refer to the detailed online documentation or the device's help section within the web interface for specific configuration steps.

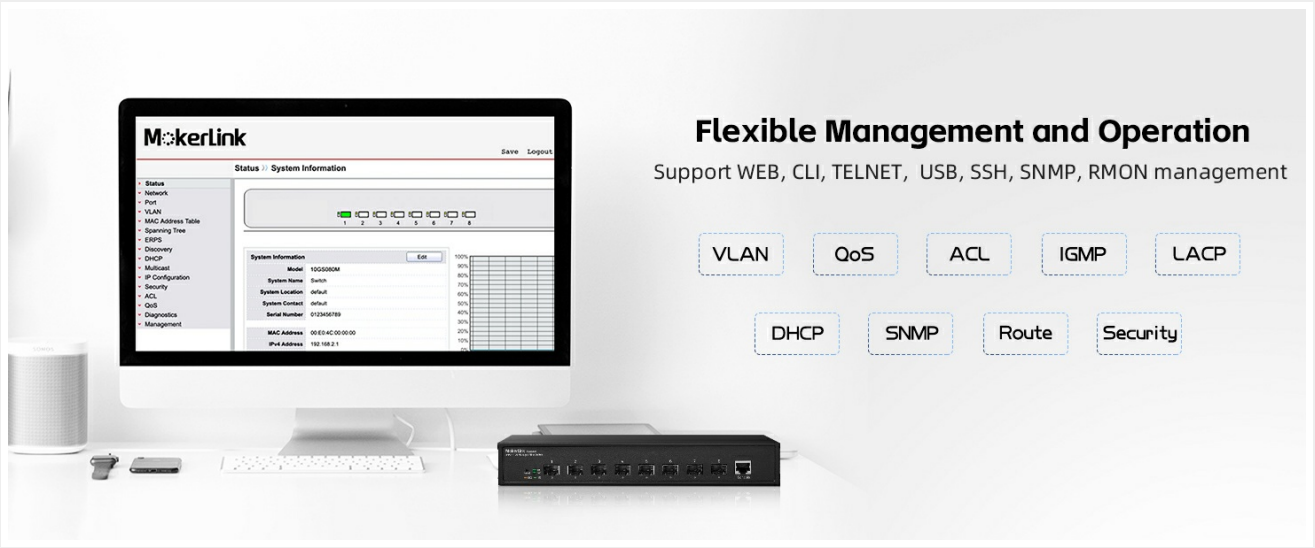

Figure 4.2: Flexible Management and Operation.

VLAN Configuration (802.1Q Tag-based VLAN):

Virtual Local Area Networks (VLANs) allow you to segment your network into logical broadcast domains, improving security and network performance. The switch supports 802.1Q tag-based VLANs.

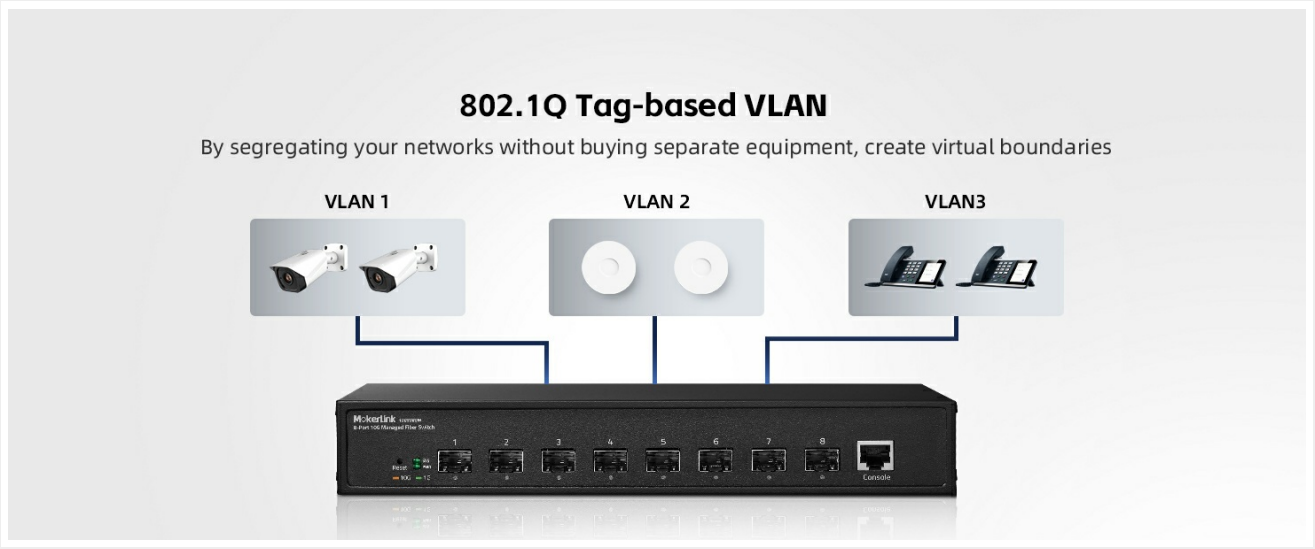

Figure 4.3: 802.1Q Tag-based VLAN Example.

Link Aggregation (LACP):

Link Aggregation Control Protocol (LACP) allows you to bundle multiple physical links into a single logical link, increasing bandwidth and providing redundancy.

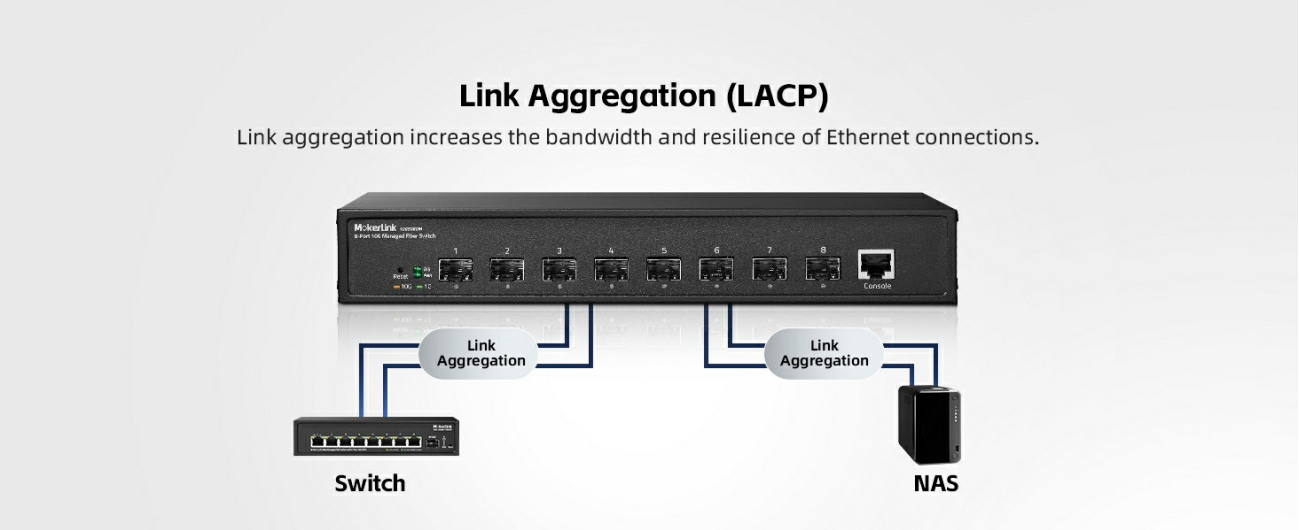

Figure 4.4: Link Aggregation (LACP) Setup.

Static Route:

Configure static routes to define specific paths for network traffic between different IP subnets or VLANs, enabling inter-VLAN routing.

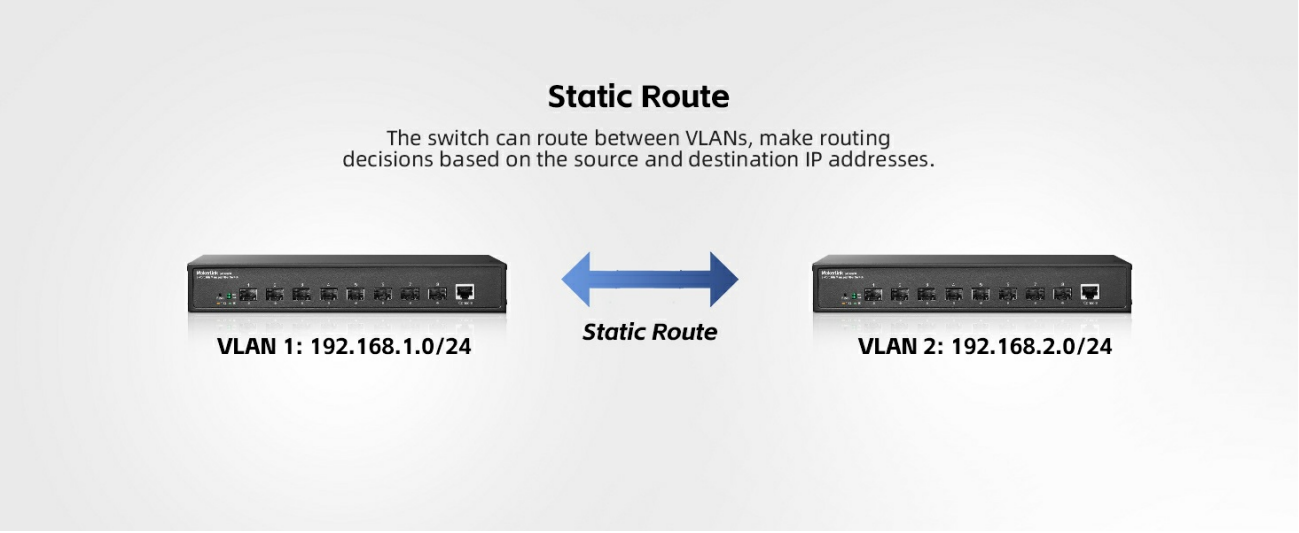

Figure 4.5: Static Route Configuration.

Loop Detection:

The loop detection feature helps identify and prevent network loops, which can cause broadcast storms and network instability.

Figure 4.6: Loop Detection Mechanism.

5. Maintenance

5.1 Firmware Upgrade

Regularly check the MokerLink official website for firmware updates. Upgrading the firmware can improve performance, add new features, and fix bugs. Follow the instructions provided with the firmware package for the upgrade process, typically performed via the web interface or CLI.

5.2 Configuration File Management

It is recommended to regularly back up your switch's configuration file. This allows for quick restoration of settings in case of an issue or when deploying similar configurations to multiple devices. Configuration files can be downloaded and uploaded via the web interface or CLI.

5.3 Cleaning

To ensure optimal performance and longevity, keep the switch clean. Use a soft, dry cloth to wipe the exterior. For ventilation openings, use compressed air to remove dust buildup. Ensure the device is powered off before cleaning.

6. Troubleshooting

This section provides solutions to common issues you might encounter.

6.1 General Troubleshooting Steps

- **No Power:** Check the power adapter connection and the power outlet. Ensure the PWR LED is illuminated.
- **No Link on Port:** Verify that the SFP/SFP+ module is correctly inserted and the fiber optic cable is properly connected to both devices. Check the corresponding 10G/1G LED indicator.
- **Cannot Access Management Interface:** Ensure your computer's IP address is in the same subnet as the switch. Verify the switch's IP address and login credentials. Try pinging the switch's IP address.
- **Network Performance Issues:** Check for network loops (refer to Loop Detection feature). Verify SFP/SFP+ module compatibility and cable quality.

6.2 LED Indicator Guide

Indicator	Status	Description

Indicator	Status	Description
PWR	On	Device is powered on.
PWR	Off	Device is powered off.
SYS	On	System is operating normally.
SYS	Off	System is abnormal.
10G (Port)	Orange	Port is linked at 10Gbps.
1G (Port)	Green	Port is linked at 1Gbps.
10G/1G (Port)	Off	No link or link is down.

7. Specifications

The following table details the technical specifications of the MokerLink 8 Port 10G SFP+ Managed Fiber Switch.

Figure 7.1: Port Speed and Switching Capacity.

Feature	Specification
Brand	MokerLink
Model Number	8x10G SFP+ Managed
Number of Ports	8
Interface Type	SFP+
Data Transfer Rate	160 Gigabits Per Second (Non-blocking)
Product Dimensions	8.78"L x 4.06"W
Item Weight	3.74 pounds
Case Material	Metal

Feature	Specification
Voltage	12 Volts (AC 100-240V, 12V/3A Max 35W)
Upper Temperature Rating	185 Degrees Fahrenheit
Memory Cache	12Mbit
Packet Forwarding Rate	119.04Mpps
MAC Address Table	16K

8. Warranty and Support

MokerLink products are designed for reliability and performance. For warranty information and technical support, please refer to the official MokerLink website or contact their customer service directly. When contacting support, please have your product model number (8x10G SFP+ Managed) and purchase details available.