

[Manuals.plus](#) /

› [TP-Link](#) /

› TP-Link Gigabit SFP Module TL-SM311LS User Manual

## TP-Link TL-SM311LS

# TP-Link Gigabit SFP Module User Manual

Model: TL-SM311LS

## 1. INTRODUCTION

---

This manual provides essential information for the installation, operation, and maintenance of your TP-Link TL-SM311LS Gigabit SFP Module. The TL-SM311LS is designed to extend the transfer distance of network connections, making it suitable for various LAN requirements.

## 2. PRODUCT OVERVIEW

---

The TP-Link TL-SM311LS is a Single-Mode MiniGBIC module that supports full-duplex communication. It operates at a wavelength of 1310nm with a data rate of 1.25Gbps and features an LC/UPC port type.

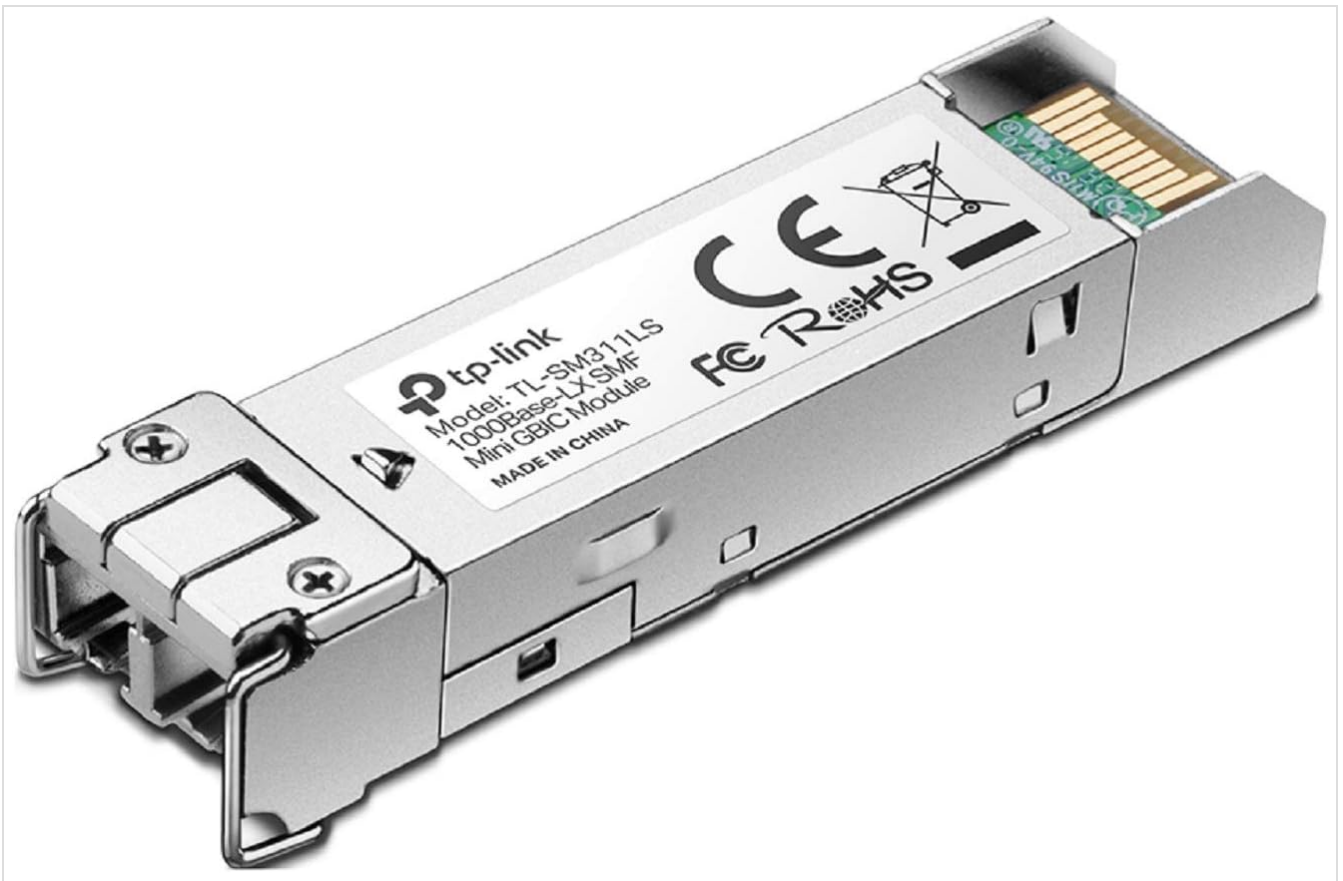


Image: The TP-Link TL-SM311LS Gigabit SFP Module, a compact silver module with an LC/UPC interface and product labeling.

### Key Features:

- Single-Mode MiniGBIC module, supports full-duplex operation.
- Wave Length: 1310nm.
- Data Rate: 1.25Gbps.
- Port Type: LC/UPC.
- Max. Cable Length: 12.4 miles (20km) for 9/125um Single-Mode Fiber.
- Compatible with all SFP ports on TP-Link products, including JetStream switches and media converter MC220L.
- Works with MC210CS for single mode fiber connections.

### What's in the Box:

- TP-Link TL-SM311LS Single-Mode Fiber Module

## 3. SETUP

---

The TL-SM311LS module is designed for plug-and-play installation, requiring no complex configuration. Ensure compatibility with your networking device's SFP port before installation.

1. **Preparation:** Before handling the SFP module, ensure you are properly grounded to prevent electrostatic discharge (ESD).
2. **Remove Dust Plug:** Carefully remove the protective dust plug from the SFP module's optical bores. It is crucial to keep the dust plug on the SFP's optical bores until you are ready to make a connection to prevent contamination.
3. **Insert Module:** Gently insert the TL-SM311LS module into an available SFP port on your compatible TP-Link switch or media converter. Ensure it clicks securely into place.
4. **Connect Fiber Cable:** Connect a compatible LC/UPC single-mode fiber optic cable to the module's LC/UPC interface. Ensure the fiber cable is clean and free of dust.

5. **Verify Connection:** Once connected, verify the link status indicators on your networking device to confirm a successful connection.

## 4. OPERATING

---

The TL-SM311LS module operates by converting electrical signals from your networking device into optical signals for transmission over single-mode fiber optic cables, and vice-versa. This allows for data transmission over much longer distances than traditional copper Ethernet cables.

- **Data Transmission:** The module facilitates 1.25Gbps Gigabit Ethernet data transmission over single-mode fiber.
- **Full-Duplex Support:** It supports full-duplex communication, allowing simultaneous data transmission and reception.
- **Distance Extension:** Capable of extending network connections up to 10km (6.2 miles) or even 20km (12.4 miles) with appropriate 9/125um single-mode fiber.

## 5. MAINTENANCE

---

Proper maintenance ensures the longevity and optimal performance of your SFP module.

- **Cleanliness:** Always keep the optical connectors clean. Dust and contaminants can significantly degrade performance. Use only approved fiber optic cleaning tools and methods.
- **Dust Plugs:** When the module is not in use or not connected to a fiber cable, always re-attach the protective dust plug to the optical bores.
- **Handling:** Handle the module by its metal casing. Avoid touching the optical interfaces or the electrical contacts.
- **Storage:** Store the module in a cool, dry environment, away from direct sunlight and extreme temperatures.

## 6. TROUBLESHOOTING

---

If you encounter issues with your TL-SM311LS module, consider the following common troubleshooting steps:

- **No Link Light:**
  - Ensure the module is fully seated in the SFP port.
  - Check the fiber optic cable for damage or kinks.
  - Verify that the fiber connectors are clean and free of dust.
  - Confirm that the connected device (e.g., switch, media converter) is powered on and functioning correctly.
  - Ensure you are using the correct type of fiber cable (single-mode) for this module.
- **Intermittent Connection:**
  - Inspect fiber cable for damage or excessive bending.
  - Clean fiber connectors on both ends.
  - Check for electromagnetic interference if the cable runs near power lines.
- **Slow Speed:**
  - Ensure both ends of the fiber link are operating at the expected speed (1.25Gbps).
  - Check for excessive attenuation in the fiber link (e.g., too long a cable, poor splices).

If problems persist, consult the user manual of your connected networking device or contact TP-Link technical support.

## 7. SPECIFICATIONS

---

Attribute	Value
Product Dimensions	8.15 x 1.5 x 5.83 inches
Item Weight	1.76 ounces
ASIN	B003CFATYW
Item model number	TL-SM311LS
Date First Available	March 10, 2010
Manufacturer	TP-Link
Brand	TP-Link
Hardware Interface	GBIC
Compatible Devices	Laptop, Desktop, Mouse, Keyboard, Webcam, Tablet, Headphone, Printer, Smartphone, Game Console ( <i>Note: Compatibility refers to devices that can connect to a network via a switch/media converter using this module, not direct connection to these devices.</i> )
Data Link Protocol	Ethernet
Data Transfer Rate	1250 Megabits Per Second
UPC	808112549024, 729533014871, 807030489511, 809186264981, 809385659977, 806293522799, 681340212416, 631058211799, 804066559201, 731215284304, 845973030216, 031112142524
Global Trade Identification Number	00845973030216

## 8. WARRANTY AND SUPPORT

---

TP-Link products typically come with a manufacturer's warranty. Based on customer feedback, a 2-year warranty is often provided for this type of product. Please refer to the official TP-Link website or your product's packaging for the most accurate and up-to-date warranty information specific to your region.

### Additional Resources:

- **Official User Manual (PDF):** For a comprehensive guide, you can download the official user manual from [TP-Link's support page](#).
- **Installation Manual (PDF):** An installation-specific guide is also available at [this link](#).
- **TP-Link Support:** Visit the official TP-Link website for technical support, FAQs, and contact information.

