

# Installation Guide

1000Base-BX WDM Bi-Directional SFP Module

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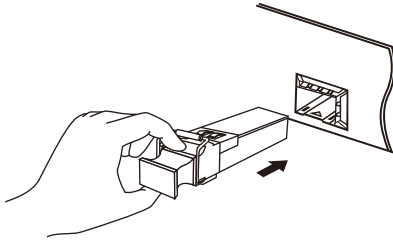


For technical support, replacement services, user guides, and more, please visit <https://support.omadanetworks.com/>, or simply scan the QR code.

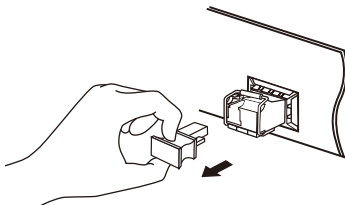


## Install the SFP

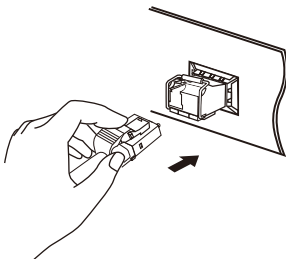
1. Wear an ESD-preventive wrist or ankle strap to prevent ESD damage to the transceiver.
2. Insert the SFP into the SFP slot and firmly press it into place.



3. Remove the protective dust plug from the SFP.

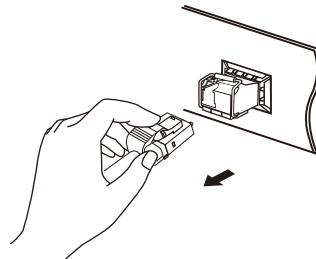


4. Plug a fiber-optic cable into the SFP. Note that the SFP works without any additional configuration.

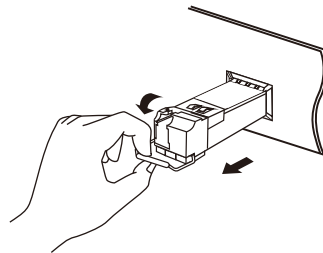


## Remove the SFP

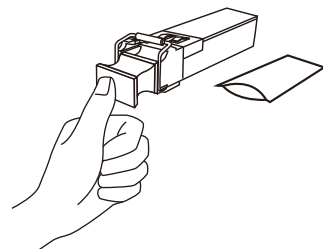
1. Wear an ESD-preventive wrist or ankle strap to prevent ESD damage to the transceiver.
2. Disconnect the network fiber-optic cable from the SFP.



3. Pull the safety latch downwards to release the SFP, and then pull it out from the slot.



4. Reinstall the protective dust plug in the SFP's optical bores and place it on antistatic mat or a static shielding bag.



### Note:

1. Do not touch the output pins on the transceiver with your hand.
2. Always keep the protective dust plug on the SFP's optical bores until you are ready to make a connection.

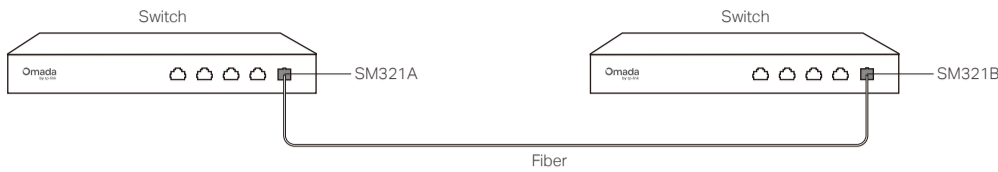
### Caution:

DO NOT point or stare directly into the beam or into the optical port of the transceiver when it is operating, as this can injure your eyesight.

Connection

Use only the SM321A&SM321B together, and SM321A-2&SM321B-2 together for fast and reliable connectivity between switches.

For simplicity, we will take SM321A&SM321B as an example.



Specifications

| General Specifications  |                      |             |
|-------------------------|----------------------|-------------|
| Model                   | SM321A               | SM321B      |
| Wave Length             | Tx: 1550 nm          | Tx: 1310 nm |
|                         | Rx: 1310 nm          | Rx: 1550 nm |
| Standards and Protocols | IEEE 802.3z, TCP/IP  |             |
| Cable                   | Single-mode Fiber    |             |
| Fiber Type              | 9/125 um Single-mode |             |
| Max. Cable Length       | 20 km                |             |
| Data Rate               | 1.25 Gbps            |             |
| Port Type               | LC Simplex           |             |
| Power Support           | 3.3 V                |             |
| Safety & Emission       | FCC, CE              |             |
| DDM                     | Yes                  |             |
| SFP-MSA                 | Yes                  |             |
| Hot Swappable           | Yes                  |             |
| Max. Laser Output Power | 0.501 mW (-3 dBm)    |             |
| Laser Class             | Class 1              |             |

| Environmental and Physical Specifications |                                    |
|---|------------------------------------|
| Operating Temperature                     | 0 °C to 70 °C (32 °F to 158 °F)    |
| Storage Temperature                       | -40 °C to 85 °C (-40 °F to 185 °F) |
| Operating Humidity                        | 10% to 90% RH, Non-condensing      |
| Storage Humidity                          | 5% to 90% RH, Non-condensing       |

| Model                   | SM321A-2             | SM321B-2    |
|-------------------------|----------------------|-------------|
| Wave Length             | Tx: 1550 nm          | Tx: 1310 nm |
|                         | Rx: 1310 nm          | Rx: 1550 nm |
| Standards and Protocols | IEEE 802.3z, TCP/IP  |             |
| Cable                   | Single-mode Fiber    |             |
| Fiber Type              | 9/125 um Single-mode |             |
| Max. Cable Length       | 2 km                 |             |
| Data Rate               | 1.25 Gbps            |             |
| Port Type               | LC Simplex           |             |
| Power Support           | 3.3 V                |             |
| Safety & Emission       | FCC, CE              |             |
| DDM                     | Yes                  |             |
| SFP-MSA                 | Yes                  |             |
| Hot Swappable           | Yes                  |             |
| Max. Laser Output Power | 0.501 mW (-3 dBm)    |             |
| Laser Class             | Class 1              |             |

Compatible Products

- Omada Switches with gigabit SFP Slots
- MC220L

Note:  
The SFP modules may be incompatible with other vendors' devices. We recommend that you use only Omada SFP modules on your Omada devices.

FCC FCC compliance information statement

Product Name: 1000Base-BX WDM Bi-Directional SFP Module  
Model Number: SM321A/SM321B/SM321A-2/SM321B-2  
Responsible party:  
TP-Link Systems Inc.  
Address: 10 Mauchly, Irvine, CA 92618  
Website: <https://www.tp-link.com/us/>  
Tel: +1 626 333 0234  
Fax: +1 909 527 6804  
E-mail: [sales.usa@tp-link.com](mailto:sales.usa@tp-link.com)  
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the 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, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.  
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:  
1) This device may not cause harmful interference.  
2) This device must accept any interference received, including interference that may cause undesired operation.  
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.  
We, TP-Link Systems Inc., has determined that the equipment shown as above has been shown to comply with the applicable technical standards, FCC part 15. There is no unauthorized change is made in the equipment and the equipment is properly maintained and operated.

Issue Date: 2025/04/21

EU Declaration of Conformity  
TP-Link hereby declares that the SFP Module is in compliance with the essential requirements and other relevant provisions of directives 2014/30/EU, 2014/35/EU, 2011/65/EU and (EU)2015/863.  
The original EU declaration of conformity may be found at <https://www.tp-link.com/en/support/ce/>.  
UK Declaration of Conformity  
TP-Link hereby declares that the SFP Module is in compliance with the essential requirements and other relevant provisions of the Electromagnetic Compatibility Regulations 2016 and Electrical Equipment (Safety) Regulations 2016.  
The original UK declaration of conformity may be found at <https://www.tp-link.com/support/ukca/>.

Safety Information  
• Keep the device away from water, fire, humidity or hot environments.  
• Do not attempt to disassemble, repair, or modify the device.  
• Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.  
• Do not point or stare directly into the beam or into the optical port of the transceiver when it is operating, as this can injure your eyesight.  
• Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation.

Продукт сертифіковано згідно з правилами системи УкрСЕПРО на відповідність вимогам нормативних документів та вимогам, що передбачені чинними законодавчими актами України.



Industry Canada Statement

CAN ICES-003 (A)/NMB-003(A)

CE Mark 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.



Explanation of the symbols on the product label

Symbols may vary from products. The label is at the bottom of the product.

| Symbol | Explanation   |
|--------|---|
|        | Class II equipment  |
|        | Class II equipment with functional earthing   |
|        | Alternating current   |
|        | Direct current  |
|        | Polarity of d.c. power connector  |
|        | For indoor use only   |
|        | Dangerous voltage   |
|        | Caution, risk of electric shock   |
|        | Energy efficiency Marking   |
|        | Protective earth  |
|        | Earth   |
|        | Frame or chassis  |
|        | Functional earthing   |
|        | Caution, hot surface  |
|        | Caution   |
|        | Operator's manual   |
|        | Stand-by  |
|        | "ON"/"OFF" (push-push)  |
|        | Fuse  |
|        | Fuse is used in neutral N   |
|        | RECYCLING<br>This product bears the selective sorting symbol for Waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European directive 2012/19/EU in order to be recycled or dismantled to minimize its impact on the environment.<br>User has the choice to give his product to a competent recycling organization or to the retailer when he buys a new electrical or electronic equipment. |
|        | Caution, avoid listening at high volume levels for long periods   |
|        | Disconnection, all power plugs  |
| m      | Switch of mini-gap construction   |
| μ      | Switch of micro-gap construction (for US version)<br>Switch of micro-gap /micro-disconnection construction (for other versions except US)   |
| ε      | Switch without contact gap (Semiconductor switching device)   |