

# Aruba SFP/SFP+ Optical Modules

## Installation Guide

Aruba SFP/SFP+ modules, small form-factor pluggable modules also known as mini-GBICs, are hot-swappable Gigabit Ethernet optical transceivers. Aruba tests and supports the following Aruba-approved optics within their platforms:

- SFP-TX
- SFP-SX
- SFP-LX
- SFP-10GE-SR
- SFP-10GE-LR
- SFP-10GE-LRM
- SFP-10GE-ER
- SFP-10GE-ZR



Non-approved, third party optics are not tested or supported; therefore, Aruba does not guarantee proper functionality of non-approved, third party optics when used in an Aruba platforms. For a complete list of Aruba approved optics, contact your Aruba sales representative. [Specifications](#) are listed on [page 2](#) of this guide.

## Platform Support

[Table 1](#) lists platform support for the Aruba SFP/SFP+ modules.

**Table 1** *Aruba SFP/SFP+ Compatibility Chart*

Aruba SFP Module	Aruba Platform Support
SFP-TX	Aruba 7200 Series Controllers
	Aruba 7000 Series Controllers
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
	Aruba S1500 Mobility Access Switches
SFP-SX	Aruba 7200 Series Controllers
	Aruba 7000 Series Controllers
	Aruba 3000 Series Controllers
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
	Aruba S1500 Mobility Access Switches

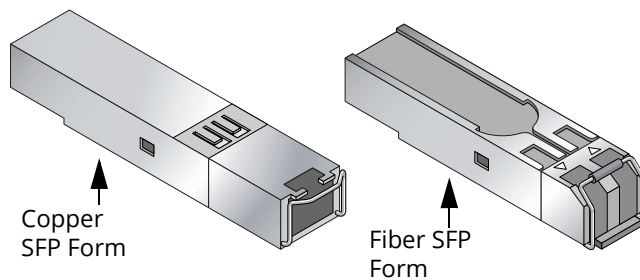
**Table 1** Aruba SFP/SFP+ Compatibility Chart (Continued)

Aruba SFP Module	Aruba Platform Support
SFP-LX	Aruba 7200 Series Controllers
	Aruba 7000 Series Controllers
	Aruba 3000 Series Controllers
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
	Aruba S1500 Mobility Access Switches
SFP-10GE-SR	Aruba 7200 Series Controllers
	Aruba 7024 Controller
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
SFP-10GE-LR	Aruba 7200 Series Controllers
	Aruba 7024 Controller
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
SFP-10GE-LRM	Aruba 7200 Series Controllers
	Aruba 7024 Controller
	Aruba S3500 Mobility Access Switches
	Aruba S2500 Mobility Access Switches
SFP-10GE-ER	Aruba 7200 Series Controllers
	Aruba 7024 Controller
SFP-10GE-ZR	Aruba 7200 Series Controllers
	Aruba 7024 Controller

## Specifications

Figure 1 shows the physical form factor of Aruba's copper and fiber based SFP/SFP+ modules.

**Figure 1** SFP Module Form Factor



## SFP-TX

Table 2 describes the specifications for the SFP-TX module.

**Table 2** SFP-TX Specifications

Parameter	Specification
Connector Type	RJ-45
Cable Type and Maximum Range	Cat 5, 5E, 6/Range up to 100 m

## SFP-SX

Table 3 describes the specifications for the SFP-SX module.

**Table 3** SFP-SX Specifications

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	62.5 $\mu$ m multi-mode fiber/Range up to 260 m (850 feet)
	50 $\mu$ m multi-mode fiber/Range up to 550 m (1800 feet)
Input Wavelength	770 to 860 nm
Center Wavelength	830 to 860 nm

## SFP-LX

Table 4 describes the specifications for the SFP-LX module.

**Table 4** SFP-LX Specifications

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	9 $\mu$ m single-mode fiber/Range of 10 km (6.21 miles)
Input Wavelength	1260 nm to 1570 nm
Center Wavelength	1310 nm

## SFP-10GE-SR

Table 5 describes the specifications for the SFP-10GE-SR module.

**Table 5** SFP-10GE-SR Specifications

Parameter	Specification
Connector Type	LC fiber optic

**Table 5** SFP-10GE-SR Specifications (Continued)

Parameter	Specification
Cable Type and Maximum Range	62.5 µm multi-mode fiber with 160 MHz/km (FDDI) cable has a range of 26 m (85.3 feet)
	62.5 µm multi-mode fiber with 200 MHz/km (OM1) cable has a range of 33 m (108.3 feet)
	50 µm multi-mode fiber with 400 MHz/km cable has a range of 66 m (216.5 feet)
	50 µm multi-mode fiber with 500MHz/km (OM2) cable has a range of 82 m (269 feet)
	50 µm multi-mode fiber with 2000 MHz/km (OM3) cable has a range of 300 m (984.3 feet)
Input Wavelength	840 nm to 860 nm
Center Wavelength	850 nm

## SFP-10GE-LR

Table 6 describes the specifications for the SFP-10GE-LR module.

**Table 6** SFP-10GE-LR Specifications

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	9 µm single-mode fiber/Range of 10 km (6.21 miles)
Input Wavelength	1280 nm to 1340 nm
Center Wavelength	1310 nm

## SFP-10GE-LRM

Table 7 describes the specifications for the SFP-10GE-LRM module.

**Table 7** SFP-10GE-LRM Specifications

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	50 µm multi-mode fiber with 500MHz/km (OM2) or 2000MHz/km (OM3) cable has a range of 220 m (721.8 feet)
	50 µm multi-mode fiber with 400 MHz/km cable has a range of 100 m (328.1 feet)
	62.5 µm multi-mode fiber with 160 MHz/km (FDDI) or 200 MHz/km (OM1) cable has a range 220 m (721.8 feet)
Input Wavelength	1260 nm to 1355 nm
Center Wavelength	1310 nm

## SFP-10GE-ER

Table 8 describes the specifications for the SFP-10GE-ER module.

**Table 8** *SFP-10GE-ER Specifications*

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	9 μm single-mode fiber/Range of 40 km (24.85 miles)
Input Wavelength	1530 nm to 1565 nm
Center Wavelength	1550 nm

## SFP-10GE-ZR

Table 9 describes the specifications for the SFP-10GE-ZR module.

**Table 9** *SFP-10GE-ZR Specifications*

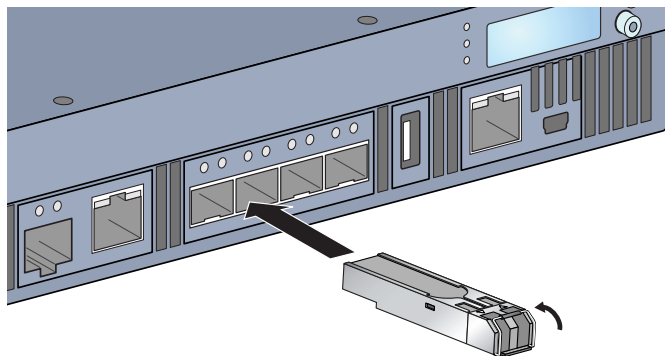
Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Maximum Range	9 μm single-mode fiber/Range of 80 km (49.71 miles)
Input Wavelength	1530 nm to 1565 nm
Center Wavelength	1550 nm

## SFP Installation

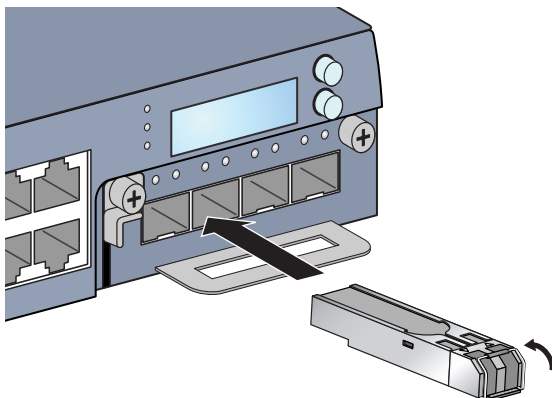
To install an SFP module into the top row of a controller or a Mobility Access Switch (MAS):

1. Use standard ESD precautions when installing an SFP module.
2. Slide the SFP module, top side facing upward, into a 1000Base-X port until a connection is made and an audible click is heard.
3. Lock the SFP in place by moving the latch on the module to an upright position, facing the top of the module.

**Figure 2** *Installing an SFP into a 7200 Series controller*



**Figure 3** *Installing an SFP into an S3500 MAS*

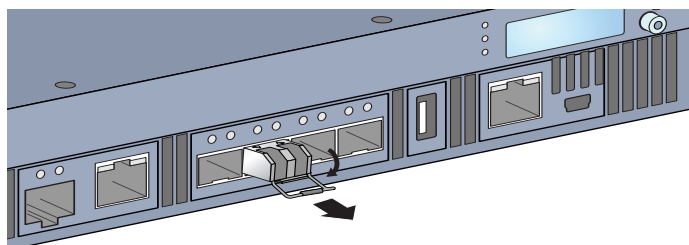


## SFP Removal

To remove an SFP module:

1. Use standard ESD precautions when removing an SFP module.
2. Open and release the latch on the SFP module.
3. Pull and remove the module from the port.

**Figure 4** *Removing an SFP Module*



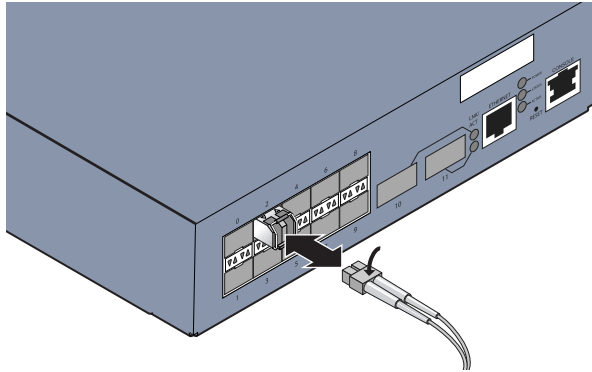
## LC Fiber Optic Cable Connection

To connect an LC fiber optic cable into an SFP-SX or SFP-LX module:

1. Insert the fiber optic cable into the SFP module. Ensure that the latch on the cable faces the top of the SFP module.
2. Slide the cable into place until a connection is made and an audible click is heard.

To disconnect an LC fiber optic cable from an SFP-SX or SFP-LX module, depress to release the latch on the cable and simultaneously pull the cable out of the port.

**Figure 5** *Connecting and Disconnecting an LC Fiber Optic Cable*



## Contacting Support

**Table 10** *Contact Information*

Main Site	<a href="http://arubanetworks.com">arubanetworks.com</a>
Support Site	<a href="http://support.arubanetworks.com">support.arubanetworks.com</a>
Airheads Social Forums and Knowledge Base	<a href="http://community.arubanetworks.com">community.arubanetworks.com</a>
North American Telephone	1-800-943-4526 (Toll Free) 1-408-754-1200
International Telephones	<a href="http://www.arubanetworks.com/support-services/contact-support/">http://www.arubanetworks.com/support-services/contact-support/</a>
Software Licensing Site	<a href="http://licensing.arubanetworks.com">licensing.arubanetworks.com</a>
End of Support information	<a href="http://www.arubanetworks.com/support-services/end-of-life-products/end-of-life-policy/">http://www.arubanetworks.com/support-services/end-of-life-products/end-of-life-policy/</a>
Security Incident Response Team (SIRT)	<a href="http://www.arubanetworks.com/support-services/security-bulletins/">http://www.arubanetworks.com/support-services/security-bulletins/</a>
<b>Support Email Addresses</b>	
Americas, APAC, and EMEA	<a href="mailto:support@arubanetworks.com">support@arubanetworks.com</a>
Security Incident Response Team (SIRT)	<a href="mailto:sirt@arubanetworks.com">sirt@arubanetworks.com</a>

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