Alcatel-Lucent SFP Optical Modules
Installation Guide

Introduction

Alcatel-Lucent OmniAccess SFP modules, small form-factor pluggable modules, also known as mini-GBICs, are hot-swappable Gigabit Ethernet optical transceivers.

Alcatel-Lucent OmniAccess SFP Modules

- OAW-SFP-TX: conforms to 1000Base-T copper wiring Gigabit Ethernet standard
- OAW-SFP-SX: conforms to 1000Base-SX fiber optic Gigabit Ethernet standard
- OAW-SFP-LX: conforms to 1000Base-LX fiber optic Gigabit Ethernet standard

NOTE

Alcatel-Lucent tests and supports Alcatel-Lucent approved optics within their switch systems. Non-approved, third party optics are not tested or supported; therefore, Alcatel-Lucent does not guarantee proper functionality of non-approved, third party optics when used in an Alcatel-Lucent system. For a complete list of Alcatel-Lucent approved optics, contact your Alcatel-Lucent sales representative. Specifications are listed on page 2 of this guide.

Minimum Software Requirements and Platform Support

Table 1 lists minimum software requirements and platform support for each Alcatel-Lucent SFP module.

Table 1 *Alcatel-Lucent SFP Compatibility Chart*

Alcatel-Lucent SFP Module	Minimum AOS-W Software Requirement	Alcatel-Lucent Platform Support
OAW-SFP-TX	AOS-W 3.2.0	OmniAccess Supervisor Card III
OAW-SFP-SX	AOS-W 3.2.0	OmniAccess Supervisor Card III
	AOS-W 3.2.0	OmniAccess 4504, 4604, and 4704 WLAN Switches
OAW-SFP-LX	AOS-W 3.2.0	OmniAccess Supervisor Card III
	AOS-W 3.2.0	OmniAccess 4504, 4604, and 4704 WLAN Switches

Alcatel-Lucent Approved SFP Modules

Table 2 *Alcatel-Lucent Approved SFP Modules*

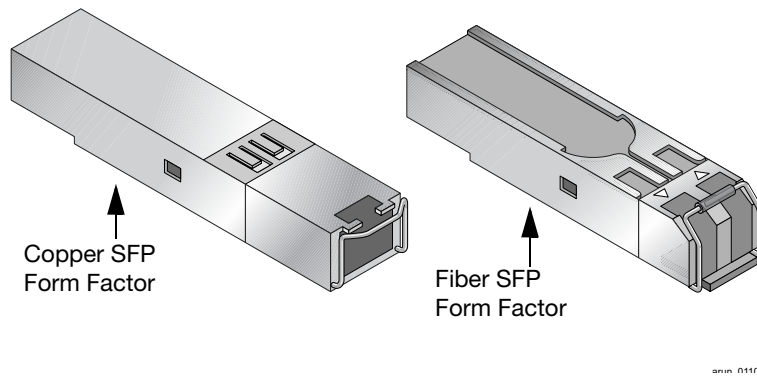| Alcatel-Lucent SFP Module	Alcatel-Lucent Approved Third Party Manufacturer	Third Party Manufacturer Part Number
OAW-SFP-TX	Delta Electronics, Inc.	LCP-1250RJ3SR
	Methode	DS-7041-R

Table 2 *Alcatel-Lucent Approved SFP Modules*

Alcatel-Lucent SFP Module	Alcatel-Lucent Approved Third Party Manufacturer	Third Party Manufacturer Part Number
OAW-SFP-SX	Delta Electronics, Inc.	LCP-1250A4FSR
	Fiberxon, Inc.	FTM-8012C-SLG
OAW-SFP-LX	Fiberxon, Inc.	FTM-3012C-SLG

Specifications

Figure 1 shows the physical form factor of Alcatel-Lucent's copper and fiber based SFP modules.

Figure 1 *SFP Module Form Factor*

Copper SFP Form Factor

Fiber SFP Form Factor

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OAW-SFP-TX

Table 3 describes the specifications for the OAW-SFP-TX module.

Table 3 *OAW-SFP-TX Specifications*

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

OAW-SFP-SX

Table 4 describes the specifications for the OAW-SFP-SX module.

Table 4 *OAW-SFP-SX Specifications*

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Range	62.5 μm multi-mode fiber/Range up to 260 m (850 feet)
	50 μm multi-mode fiber/Range up to 550 m (1800 feet)
Input Wavelength	770 to 860 nm
Center Wavelength	830 to 860 nm
Input Optical Power	-17 to -3 dBm

Table 4 *OAW-SFP-SX Specifications*

Parameter	Specification
Output Optical Power	-9.5 to -4 dBm
RMS Spectral Width	850 pm

OAW-SFP-LX

Table 5 describes the specifications for the OAW-SFP-LX module.
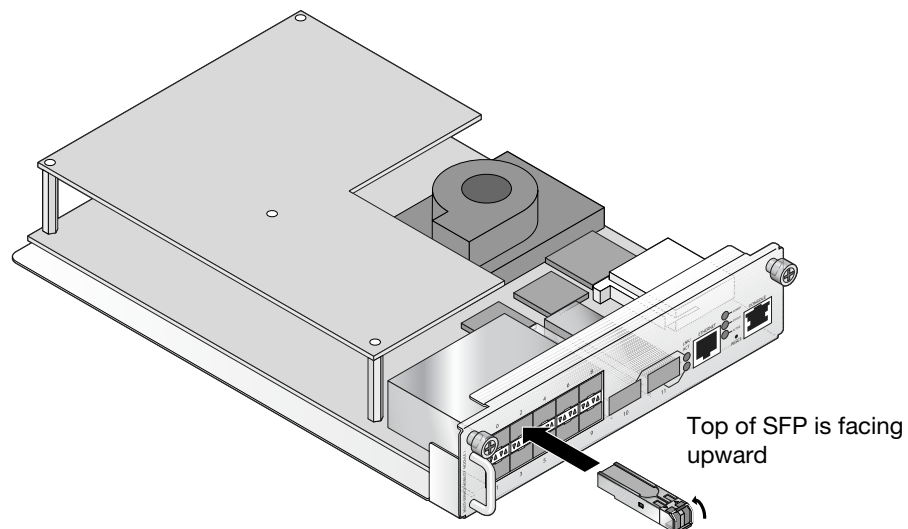
Table 5 *OAW-SFP-LX Specifications*

Parameter	Specification
Connector Type	LC fiber optic
Cable Type and Range	9 μm single-mode fiber/Range of 10 km (6.21 miles)
Input Wavelength	1260 nm to 1570 nm
Center Wavelength	1310 nm
Input Optical Power	-20 to -3 dBm
Output Optical Power	-9.5 to -3 dBm
RMS Spectral Width	4 nm

SFP Installation

To install an SFP module into the top row of an OmniAccess Supervisor Card III or an OmniAccess 4504, 4604, or 4704 WLAN Switch:

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.
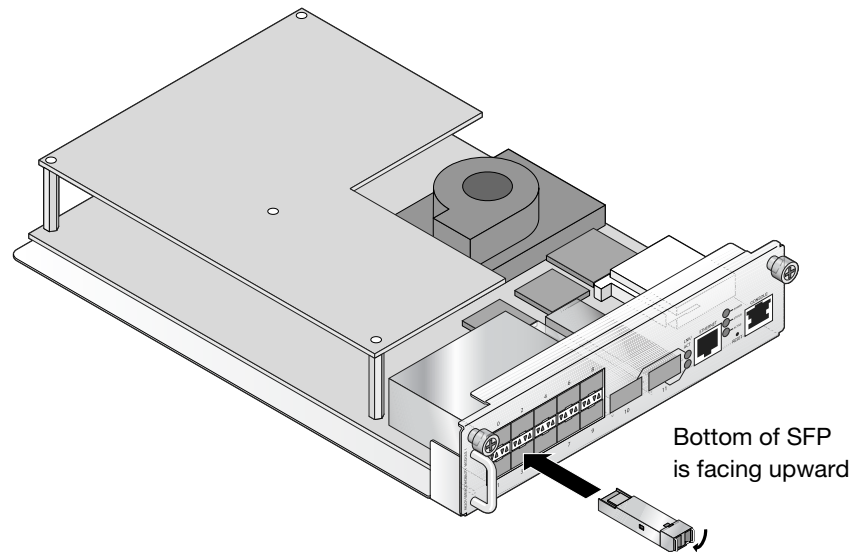
Figure 2 *Installing an SFP into the Top Row of an OmniAccess Supervisor Card III*

Top of SFP is facing upward

To install an SFP module into the bottom row of an OmniAccess Supervisor Card III:

1. Use standard ESD precautions when installing an SFP module.
2. Slide the SFP module, bottom 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 a downward position, facing the top of the module.

Figure 3 *Installing an SFP into the Bottom Row of an OmniAccess Supervisor Card III*

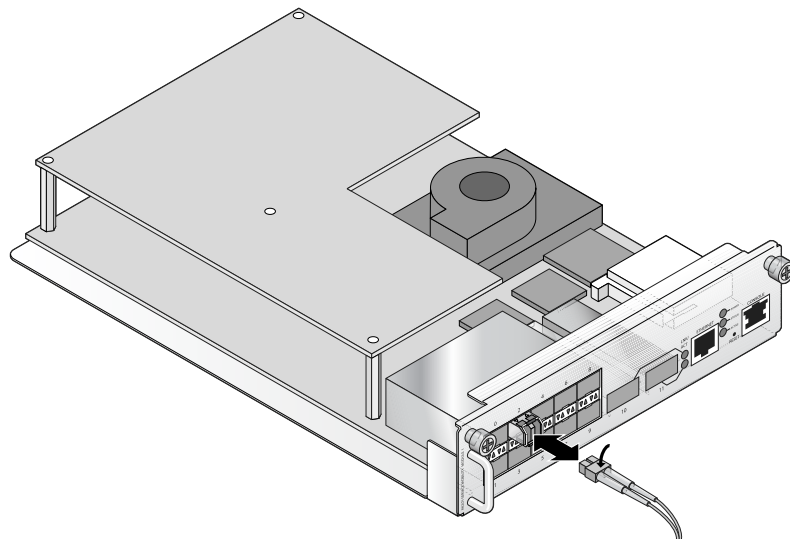Bottom of SFP is facing upward

LC Fiber Optic Cable Connection

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

3. Depress to release the latch on the cable and simultaneously pull the cable out of the port.

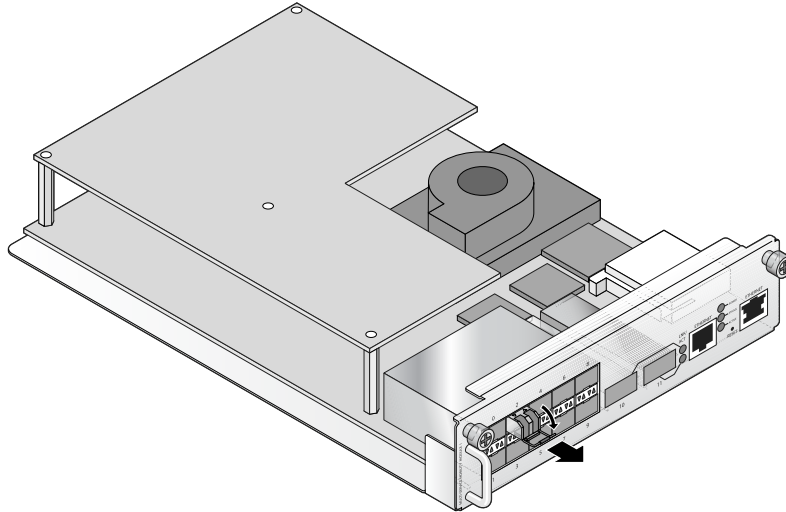**Figure 4** *Connecting and Disconnecting an LC Fiber Optic Cable*

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 5 *Removing an SFP Module*

Safety and Regulatory Compliance

Alcatel-Lucent provides a multi-language document containing country specific restrictions and additional safety and regulatory information for Alcatel-Lucent hardware products. The *Alcatel-Lucent Safety and Regulatory Addendum* can be viewed or downloaded from the following location: https://service.esd.alcatel-lucent.com.

CLASS 1
LASER PRODUCT

⚠ CAUTION	Use of controls or adjustments of performance or procedures other than those specified in this manual may result in hazardous radiation exposure.

This product complies with 21 CFR Chapter 1, Subchapter J, Part 1040.10, and IEC 60825-1: 1993, A1: 1997, A2: 2001, IEC 60825-2: 2000.

For continued compliance with the above laser safety standards, only approved Class 1 modules from our approved vendors should be installed in Alcatel-Lucent products.

Proper Disposal of Alcatel-Lucent Equipment

For the most current information on Global Environmental Compliance and Alcatel-Lucent products please see our website at www.alcatel-lucent.com.

Waste of Electrical and Electronic Equipment

Alcatel-Lucent products at end of life are subject to separate collection and treatment in the EU Member States, Norway, and Switzerland and therefore are marked with the symbol shown at the left (crossed-out wheelie bin). The treatment applied at end of life of these products in these countries shall comply with the applicable national laws of countries implementing Directive 2002/96EC on Waste of Electrical and Electronic Equipment (WEEE).

European Union RoHS

Alcatel-Lucent products also comply with the EU Restriction of Hazardous Substances Directive 2002/95/EC (RoHS). EU RoHS restricts the use of specific hazardous materials in the manufacture of electrical and electronic equipment. Specifically, restricted materials under the RoHS Directive are Lead (including Solder used in printed circuit assemblies), Cadmium, Mercury, Hexavalent Chromium, and Bromine. Some Alcatel-Lucent products are subject to the exemptions listed in RoHS Directive Annex 7 (Lead in solder used in printed circuit assemblies). Products and packaging will be marked with the "RoHS" label shown at the left indicating conformance to this Directive.

China RoHS

Alcatel-Lucent products also comply with China environmental declaration requirements and are labeled with the "EFUP e" label shown at the left.

Contacting Alcatel-LucentAlcatel-Lucent

Web Site Support	
Main Site	http://www.alcatel-lucent.com/wps/portal/enterprise
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