



# Installing SFP Modules in Cisco 3800 Series Routers

This document describes how to install optional small-form-factor pluggable (SFP) modules in Cisco 3800 series integrated services routers to provide optical Gigabit Ethernet connectivity. It contains the following sections:

- [Installing SFP Modules, page 70](#)
- [Removing SFP Modules, page 71](#)

The SFP module installs into a slot on the router's rear panel. When selected in Cisco IOS software, it is assigned port **gigabitethernet 0/0**. The default is for the built-in RJ-45 1000Base-T connector to be active on this port.

Only SFP modules certified by Cisco are supported on Cisco 3800 series routers. [Table 6](#) lists supported SFPs.

**Table 6** SFPs Supported on Cisco 3800 Series Routers

Cisco Part Number	SFP Transceiver	Fiber Diameter (micrometer)	Wavelength (nm)	Mode	Maximum Distance
GLC-SX-MM=	1000Base-SX	50	850	Multi	550 m
GLC-LH-SM=	1000Base-LX/LH	9/125	1310	Single	10 km
GLC-ZX-SM=	1000Base-ZX	9/125	1550	Single	100 km
CWDM-SFP-1470=	1000Base-CWDM	50	1470	Single	100 km
CWDM-SFP-1490=			1490		
CWDM-SFP-1510=			1510		
CWDM-SFP-1530=			1530		
CWDM-SFP-1550=			1550		
CWDM-SFP-1570=			1570		
CWDM-SFP-1590=			1590		
CWDM-SFP-1610=			1610		



**Tip**

Use the **show controller** command at the Cisco IOS prompt to determine whether you are using an SFP certified by Cisco.

**Note**

Cisco 3800 series routers do not support 1000Base-T SFP modules in the router's SFP slot. 1000Base-T connectivity is provided by the Gigabit Ethernet ports built into the router.

## Laser Safety Guidelines

Optical SFPs use a small laser to generate the fiber-optic signal. Keep the optical transmit and receive ports covered whenever a cable is not connected to the port.

**Warning**

**Because invisible laser radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to laser radiation and do not stare into open apertures.**

**Warning**

**Ultimate disposal of this product should be handled according to all national laws and regulations.**

## Installing SFP Modules

Follow these steps to install an SFP module in a Cisco 3800 series router:

**Warning**

**Because invisible laser radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to laser radiation and do not stare into open apertures.**

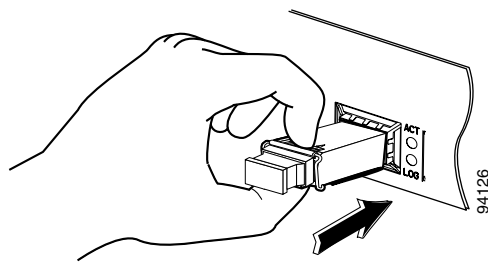
**Step 1**

Slide the SFP into the router slot until it locks into position (see [Figure 44](#)).

**Tip**

If the SFP uses a bale-clasp latch (see [Figure 45](#)), the handle should be on top of the SFP module.

**Figure 44** Installing an SFP Module

**Caution**

Do not remove the optical port plugs from the SFP until you are ready to connect cabling.

**Step 2**

Connect the network cable to the SFP module.

# Removing SFP Modules

Follow these steps to remove an SFP from a Cisco 3800 series router:

**Step 1** Disconnect all cables from the SFP.

**Warning** 

**Because invisible laser radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to laser radiation and do not stare into open apertures.**

**Caution** 

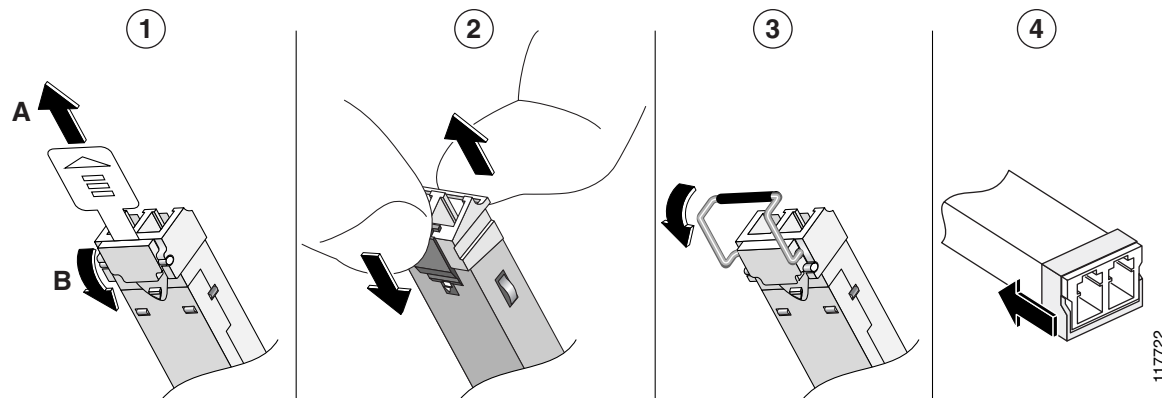
The latching mechanism used on many SFPs locks the SFP into place when cables are connected. Do not pull on the cabling in an attempt to remove the SFP.

**Step 2** Disconnect the SFP latch. See [Figure 45](#).

**Note** 

SFP modules use various latch designs to secure the module in the SFP port. Latch designs are not linked to SFP model or technology type. For information on the SFP technology type and model, see the label on the side of the SFP.

**Figure 45** Disconnecting SFP Latch Mechanisms



1	Sliding latch	3	Bale-clasp latch
2	Swing and slide latch	4	Plastic collar latch

**Tip** 

Use a pen, screwdriver, or other small straight tool to gently release a bale-clasp handle if you cannot reach it with your fingers.

**Step 3** Grasp the SFP on both sides and remove it from the router.

