Replacing an SFP Transceiver in the 6580/6780

May 2011

51356-00, Rev. A

Revision History

Version and Date	Description of Changes
51356-00, Rev. A, May 2011	Initial release of the document.

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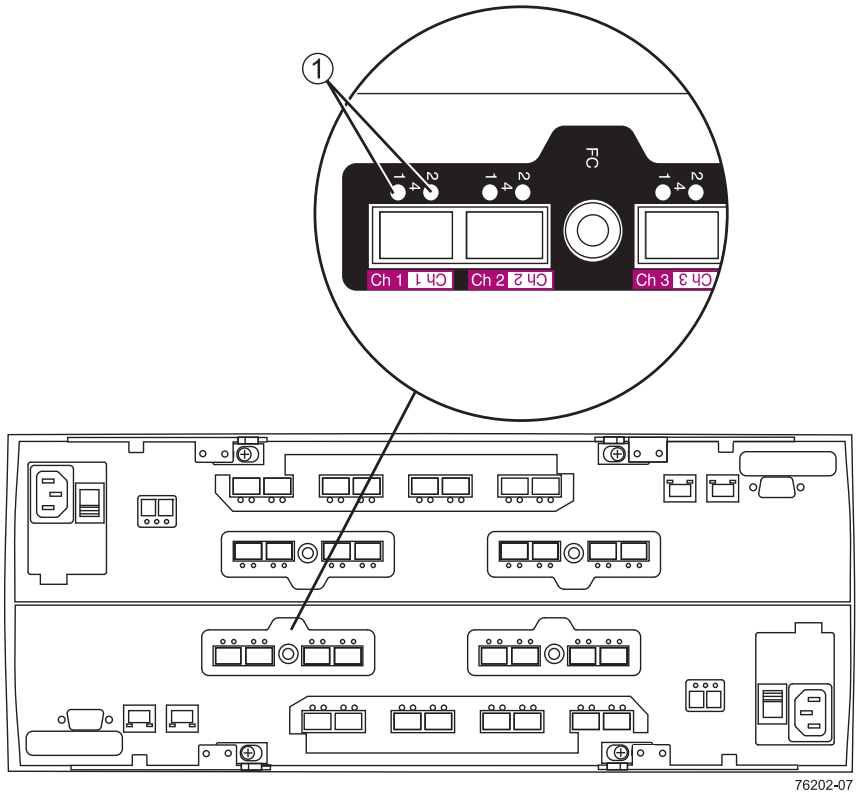
Replacing an SFP Transceiver

Before you start to replace a Small Form-factor Pluggable (SFP) transceiver in the controller module or the drive module, gather antistatic protection and a replacement SFP transceiver.

NOTE The SFP transceivers shown in this section might look different from those you are using. The difference does not affect the performance of the SFP transceivers.

ATTENTION **Possible hardware damage** – To prevent electrostatic discharge damage to the module, use proper antistatic protection when handling module components.

1. If needed, use the storage management software to create, save, and print a new storage array profile.
2. Did Recovery Guru direct you to replace a failed SFP transceiver?
   - **Yes** – Go to step 3.
   - **No** – Run Recovery Guru to identify the failed component.
3. Put on antistatic protection.
4. Unpack the new SFP transceiver.
   a. Make sure that it is the same type of SFP transceiver that you are replacing.
   b. Set the new SFP transceiver on a dry, level surface near the controller module or the drive module.
   c. Save all of the packing materials in case you need to return the SFP transceiver.
5. Check the Host Channel Speed LEDs on the rear of the controller CRUs to locate the failed SFP transceiver. Both Host Channel Speed LEDs for a particular port are off if an SFP transceiver has failed.



1.Host Channel Speed LEDs

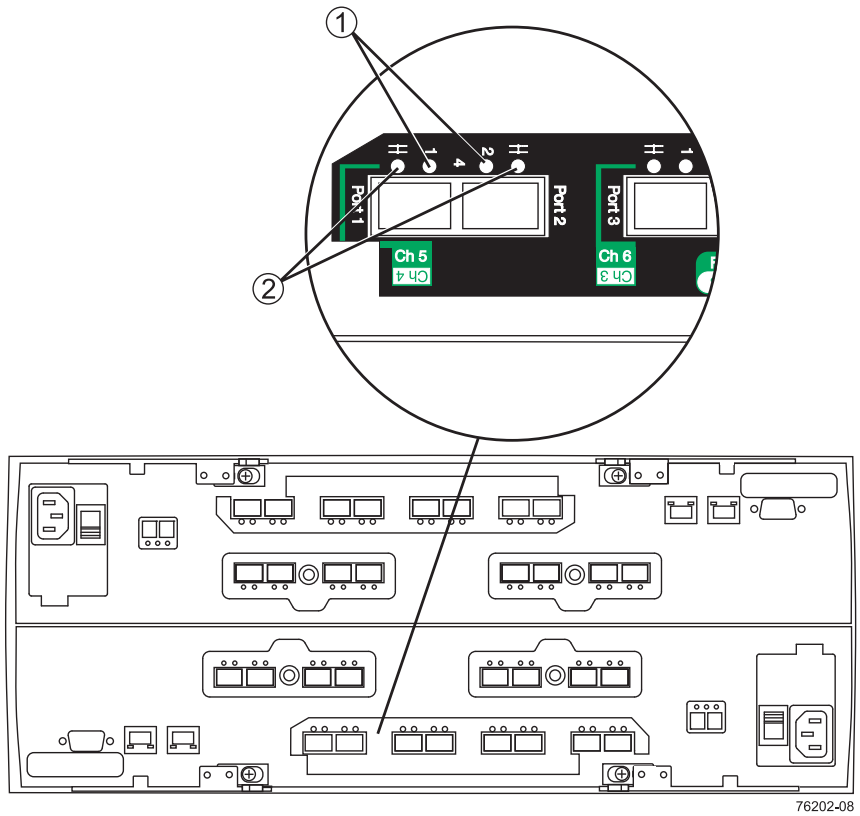
Figure 1 Host Channel Speed LEDs on the Controller CRU

If both Host Channel Speed LEDs are off for a particular port, you must replace the SFP transceiver. Go to step 8.

If at least one Host Channel Speed LED is on for a particular port, the SFP transceiver is functional. The Host Channel Speed LEDs indicate a channel speed of 1 Gb, 2 Gb, or 4 Gb.

NOTE The Controller Service Action Required LED is on whenever a loss of a path occurs. The software's Module Component Information dialog provides channel and port information to help you identify the components that are in the path.

6 Check the Drive Channel Speed LEDs on the rear of the controller module to locate the failed SFP transceiver. Both Drive Channel Speed LEDs for a particular port are off if an SFP transceiver has failed.



1.Drive Channel Speed LEDs
2.Link LEDs

Figure 2 Drive Channel Speed LEDs and Link LEDs on the Controller CRU

If both Drive Channel Speed LEDs are off for a particular port, you must replace the SFP transceiver. Go to step 8.

If at least one Drive Channel Speed LED is on for a particular port, the SFP transceiver is functional. The Drive Channel Speed LEDs indicate a channel speed of 1 Gb, 2 Gb, or 4 Gb. The Link LED is amber when there is no link sensed.

NOTE The Controller Service Action Required LED is on whenever a loss of a path occurs. The software's Module Component Information dialog provides channel and port information to help you identify the components that are in the path.

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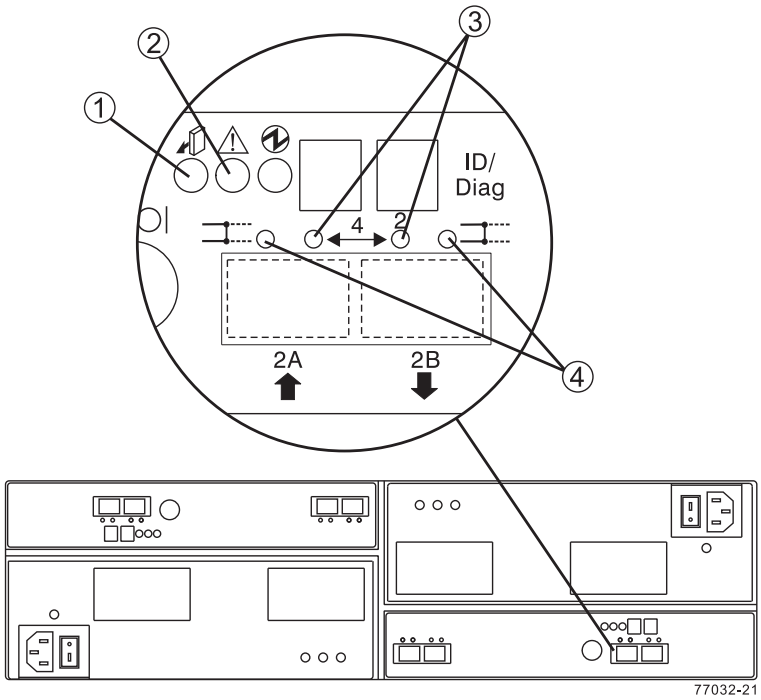
7 Check the Drive Channel Speed LEDs on the rear of the ESM CRU to locate the failed SFP transceiver. Both Drive Channel Speed LEDs for a particular port are off if an SFP transceiver has failed.



1.ESM Service Action Allowed LED (Blue)
2.ESM Service Action Required LED (Amber)
3.ESM Drive Channel Speed LEDs
4.ESM Link LEDs

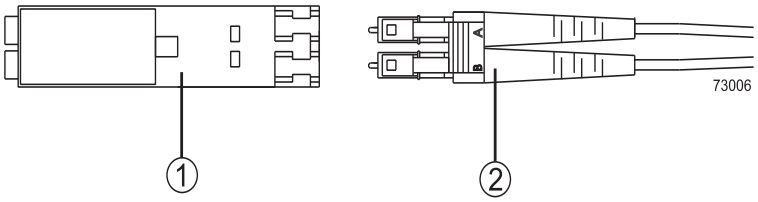
Figure 3 ESM LEDs on the Drive Module

If all of the Drive Channel Speed LEDs are off for a particular port on the drive module, you must replace the SFP transceiver. Go to step 8.

If any Drive Channel Speed LED is on, the SFP transceiver is functional. The Drive Channel Speed LEDs indicate a channel speed of 1 Gb, 2 Gb, or 4 Gb. The ESM Link LED is amber when a link is not sensed.

NOTE The ESM Service Action Required LED is on whenever a loss of a path occurs. The Module Component Information dialog in the storage management software provides channel and port information to help you identify the components that are in the path.

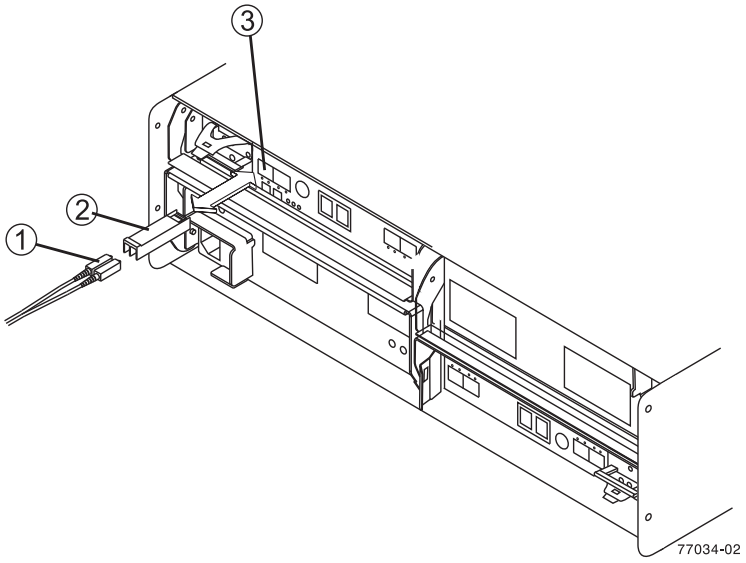
8 Disconnect the fiber-optic cable from the failed SFP transceiver.



1.SFP Transceiver
2.Fiber-Optic Cable

Figure 4 SFP Transceiver and Fiber-Optic Cable

9 Remove the failed SFP transceiver from the interface port.



1.Fiber-Optic Cable
2.SFP Transceiver
3.Drive Interface Port

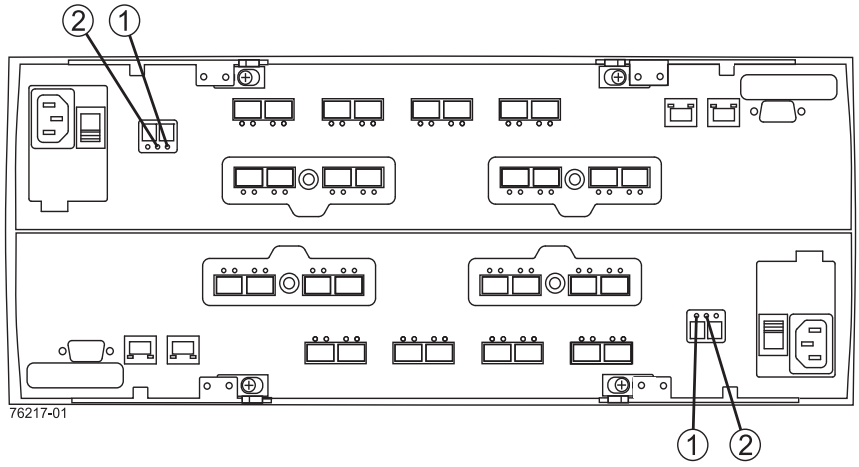
Figure 5 Removing an SFP Transceiver – Drive Module

10 Install the new SFP transceiver into the interface port.

11 Reconnect the fiber-optic cable.

12 Look at these LEDs:

- The Host Channel LEDs, the Drive Channel Speed LEDs, and the Controller Service Action Required LED on the controller CRU (Figure 1, Figure 2, and Figure 6)
- The ESM Drive Channel Speed LEDs and the ESM Service Action Required LED on the ESM CRU (Figure 3)



1.Controller Service Action Allowed LED (Blue)
2.Controller Service Action Required LED (Amber)

Figure 6 Controller Service Action LEDs

13 Based on the LED status, perform one of these actions:

- **At least one of the Channel Speed LEDs for each port is on, *and* the Service Action Required LED is off** – Go to step 15.
- **Both of the Channel Speed LEDs for a particular port are off, the Controller Service Action Required LED is on, *or* the ESM Service Action Required LED is on** – Check whether the SFP transceiver has been installed correctly. Reinstall the SFP transceiver if necessary. Go to step 14.
- **Both of the Channel Speed LEDs for a particular port are off, *and* the Service Action Required LED is off** – Check that the SFP transceiver has been installed correctly. Reinstall the SFP transceiver if necessary. Go to step 14.

14 Did this action correct the problem?

- **Yes** – Go to step 15.
- **No** – If the problem has not been resolved, contact your Sun Customer Care Center.

15 Remove the antistatic protection.

16 Check the status of all of the modules in the storage array.

17 Does any component have a Needs Attention status?

- **Yes** – Click the **Recovery Guru** toolbar button in the Array Management Window, and complete the recovery procedure. If the problem has not been resolved, contact your Sun Customer Care Center.
- **No** – Go to step 18.

18 Create, save, and print a new storage array profile.

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