Sun Disk Shelf-24x3.5” SAS-2

SIM Board Replacement Guide

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Replacing a SIM Board

This document describes how to replace the SAS Interface Module (SIM) in the Sun Disk Shelf-24x3.5″ SAS-2.

Caution – Only trained service personnel should remove the covers on this equipment.

This product is intended for restricted access, whereby access is controlled through the use of a means of security (for example, key, lock, tool, badge access) and personnel authorized for access have been instructed on the reasons for the restrictions and any precautions that they need to take.

This document assumes that you have:

- Identified the chassis containing the failed SIM board.
- Received the replacement SIM board.

ESD Precautions

When performing this service action, observe the following electrostatic discharge (ESD) precautions:

- Remove all plastic, vinyl, and foam material from the work area.
- Wear an antistatic wrist strap at all times when handling any component.
- Before handling any component, discharge any static electricity by touching a grounded surface.
- Do not remove a component from its antistatic protective bag until you are ready to install it.

- After removing a component from the chassis, immediately place it on an antistatic surface or in antistatic packaging.
- Handle any card that is part of a component only by its edges and avoid touching the components or circuitry.
- Do not slide a component over any surface.
- Limit body movement (which builds up static electricity) during the removal and replacement of a component.

SIM Board Components

FIGURE 1 illustrates the location of the SIM board components and LEDs.

FIGURE 1 SIM Board Components and LEDs

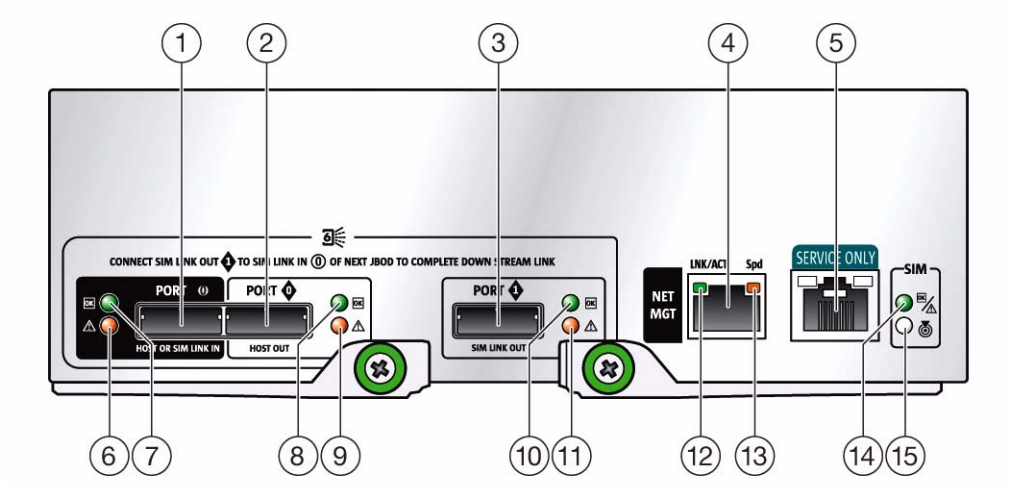


Figure Legend

1	Host or SIM Link In
2	Host Out
3	SIM Link Out
4	Network management port
5	For service only
6	Host or SIM Link In port fault LED
7	Host or SIM Link In port OK LED
8	Host Out port OK LED
9	Host Out port fault LED
10	SIM Link In port OK LED
11	SIM Link In port fault LED
12	Network management port active LED
13	Network management port speed LED (amber on indicates 100 megabits per second; amber off indicates 10 megabits per second)
14	SIM board OK LED (green)/SIM board fault LED (amber)
15	SIM locator LED

Procedure

To replace a failed SIM board, you must complete the following steps, which are explained in detail in the remainder of this guide:

1. Remove the failed SIM board. See "To Remove the Failed SIM Board" on page 4.
2. Install the replacement SIM board. See "To Install the New SIM Board" on page 6.
3. Verify the installation. See "To Verify the SIM Board Replacement" on page 7.

Caution – Potential loss of data access. If any of the port LEDs on the SIM board (FIGURE 1) are blinking, there is data actively moving in and out of the disk shelf. If you remove the SIM, data might be lost.

Caution – Electrical shock hazard. The power supplies in this equipment can produce high energy hazards. Only trained personnel with authorized access to this equipment should remove and replace modules in the system.

Note – The SIM boards are hot-swappable. You do not need to disconnect power from the system or other components in order to replace one of these components.

▼ To Remove the Failed SIM Board

1. **From the back of the chassis, locate the failed SIM.**
2. **Label each mini-SAS cable connection for reconnection to the same connectors on the replacement chassis.**

   For example, *Disk Shelf 1, SIM Link Out to Disk Shelf 0, Host or SIM Link In*.
3. **Disconnect the labeled mini-SAS cables from each SIM board:**

   a. **Grasp the metal body of the connector with one hand, and use your other hand to firmly grasp and pull the tab.**

   b. **Pull the tab gently toward the connector body, and then with your other hand, extract the connector from the chassis.**

Caution – Do not twist or pull the tab in any direction other than parallel with the connector body or you might break the tab. If the tab breaks, use a small sharp object (such as a fine-tipped screwdriver) to lift the metal spring at the top of the connector shell to unlatch it.

4. **Remove the SIM board from the chassis (**FIGURE 2**):**

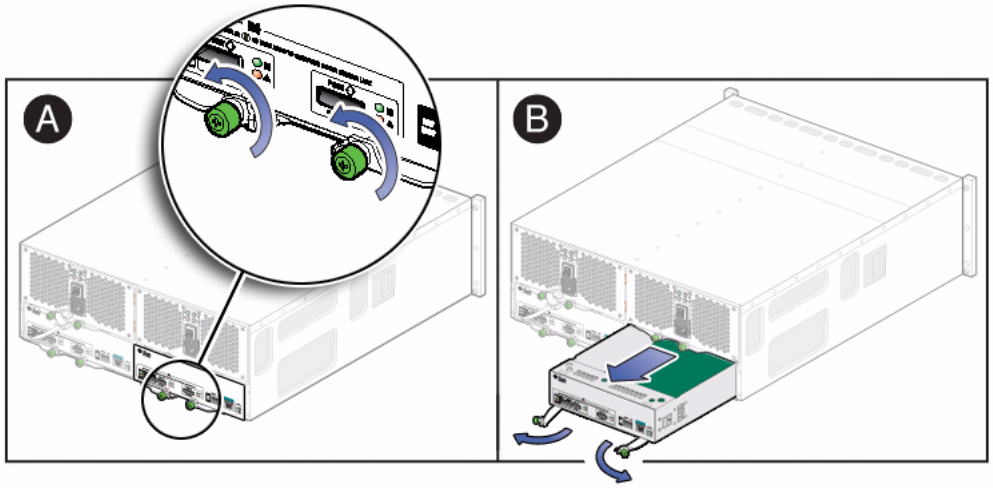
   a. **Loosen the two captive screws on the ejection levers and pull the ejection levers fully out to partially eject the SIM board from the chassis.**

      If the captive screws are too tight to loosen by hand, use a Phillips No. 2 screwdriver to loosen each screw.

   b. **Pull the SIM board from the chassis.**

5. **Place the SIM board aside on an antistatic surface or in antistatic packaging.**

FIGURE 2 Removing a SIM Board



Caution – Use care when handling either the new or failed SIM board. Ensure that all ESD precautions are being followed.

▼ To Install the New SIM Board

1. **Unpack the new SIM board.**
2. **Place the failed SIM board in the packing materials so that you can return it to Oracle for proper disposal.**
3. **Insert the new SIM board into the back of the chassis (**FIGURE 3**):**
   a. **Swing both SIM board ejection levers to the fully open position.**
   b. **Align the SIM board with the open slot and slide it into the chassis until it engages with the chassis connectors and the ejection levers begin to swing closed.**

Note – If the SIM board does not fit into the slot, check that you have the correct SIM board for this system.

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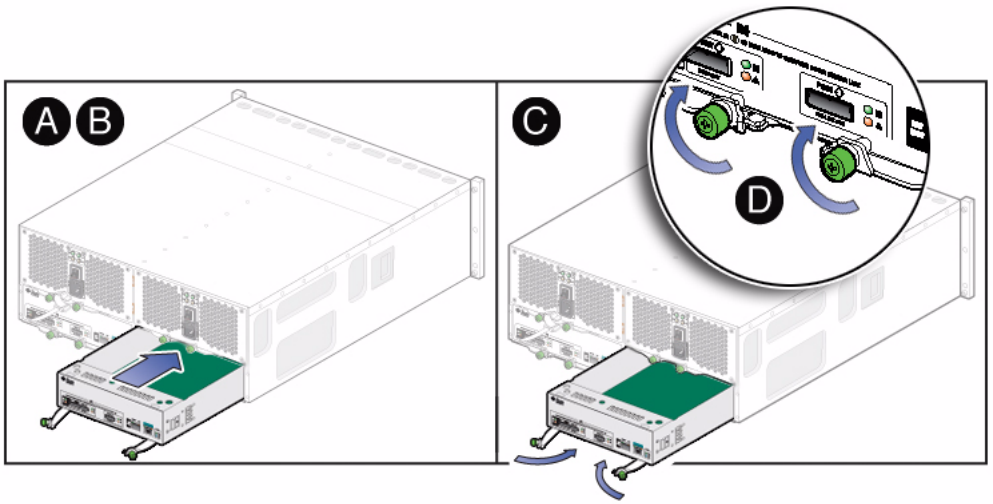
   c. **Simultaneously push both ejection levers toward the middle of the board to seat it in the chassis.**
   d. **Tighten the two ejection lever captive screws to secure the board.**

FIGURE 3 Installing a SIM Board



4. **Reconnect the mini-SAS cables to their original locations.**

▼ To Verify the SIM Board Replacement

- **Wait approximately 60 seconds for the SIM board to complete its boot process, at which point ensure that the SIM board OK LED is lit green.**

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These web sites provide additional resources:

- Documentation http://docs.oracle.com/
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