

Cisco 11500 Series Content Services Switch Memory Module Reference

The Small Outline RamBus Inline Memory Module (SO-RIMM) is a circuit board containing memory chips, RDRAMs. This Field Replaceable Unit Upgrade kit contains an SO-RIMM, containing 144 MB (CSS5-MEM-144=) or 288 MB of memory (CSS5-MEM-288=), that can replace the 144 MB modules in a CSS 11500 series Switch Control module (SCM), 8- and 16-port Fast Ethernet module (FEM), Gigabit Ethernet module (GEM), and Session Accelerator module (SAM).



Note

The 144 MB memory module has 128 MB of usable memory. The 288 memory module has 256 MB of usable memory.

Tools You Need

Before you begin, make sure you have the following tools:

- #1 Phillips screwdriver
- Electrostatic Discharge (ESD) wriststrap and wriststrap connector (included in the upgrade kit)

Installation Considerations



Caution

You must power down the CSS before you remove a module (including an SCM in the primary or secondary state) to replace its memory module. If you remove a powered-on module from an operational CSS, all communications terminate within the CSS and the CSS reboots.

To install the memory module, perform the following tasks in sequence:

1. Remove the CSS module.
2. Install the memory modules.
3. Reinstall the CSS module.



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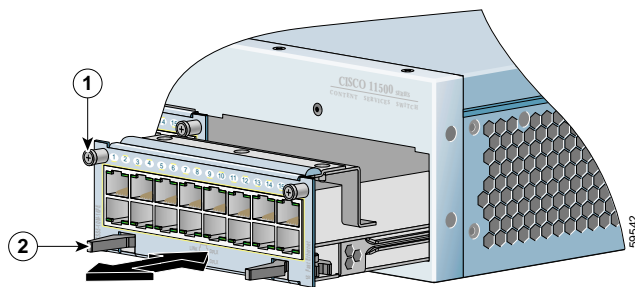
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Removing the Module

To remove a CSS module:

1. Properly ground yourself prior to handling the module. For example, wear an antistatic wrist strap (included in the upgrade kit) and stick the copper-tape end of the strap to an unpainted metal surface on the chassis. Make sure that the wrist strap makes good contact with your skin.
2. If necessary, shut down the CSS.
3. Remove all cables from the module. For an SCM, remove the PCMCIA cover.
4. Using a Phillips screwdriver, loosen the spring-loaded screws on the front of the module faceplate. See Figure 1. This figure shows an FEM. The spring-loaded screws and ejectors are in the same location on all other CSS 11500 series modules.

Figure 1 Removing a Module



| | | | |
|---|------------------------------|---|------------------|
| 1 | Spring-loaded screw (1 of 2) | 2 | Ejector (1 of 2) |
|---|------------------------------|---|------------------|

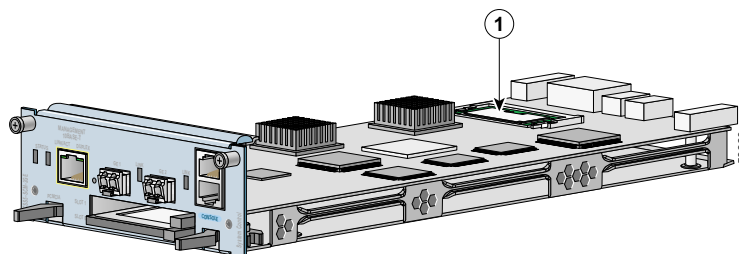
5. Extend both ejectors simultaneously to unseat the module connector from the backplane and slide the module out of the slot.

Installing the Memory Module

To install a memory module:

1. Place the module face up on a flat antistatic surface.
2. Locate the SO-RIMM connector on the rear of the module. See Figure 2. This figure shows an SCM. The SO-RIMM connector is in the same location on all other CSS 11500 series modules.

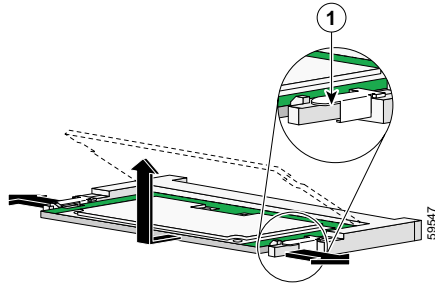
Figure 2 Memory Module Location



| | |
|---|---------------|
| 1 | Memory module |
|---|---------------|

3. Slightly extend the locking tabs on both sides of the memory module to release it. Gently pull the module out of the connector. See Figure 3.

Figure 3 Memory Replacement



| | |
|---|-----------------------|
| 1 | SO-RIMM connector tab |
|---|-----------------------|

4. Align the replacement memory module so that the row of gold contacts on the memory module are facing the row of gold pins inside the connector.
5. Insert the memory module into the connector at approximately a 30 degree angle (see Figure 3) and, with gentle pressure, push the module into the connector until the module fits snugly against the back of the connector. At this point, the module is still at an angle *above* the locking tabs.
6. Gently push straight down on the edges of the module until the tabs lock it into place.

Reinstalling the CSS Module

To reinstall the CSS module:

1. Insert the module into the board guides at the left and right sides of the slot, and slide the module into the chassis by pressing firmly at the left and right of the faceplate.
2. Close both ejectors simultaneously to seat the module connector into the backplane. Replace the cables. For an SCM, replace the PCMCIA cover.
3. Using a Phillips screwdriver, tighten the spring-loaded screws on the front of the module faceplate.
4. Reboot the CSS.

Related CLI Commands

To confirm the success of the installation, use the **show chassis** command to verify that the module is in the powered-on, primary, or secondary state.

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