

2.5 V	2375 mV
3.3 V	3138 mV
5.0 V	4763 mV
1.2 V Rocket IO	1160 mV
1.5 V Rocket IO	1408 mV
1.8 V RLDRAM	1717 mV
I2C Slave Revision	15

For more information about using the CLI, see the Junos OS manuals.

- See Also**
- [MX480 Craft Interface Description on page 37](#)
 - [MX480 Routing Engine Description on page 60](#)

Replacing an MX480 Routing Engine

1. [Removing an MX480 Routing Engine on page 243](#)
2. [Installing an MX480 Routing Engine on page 245](#)

Removing an MX480 Routing Engine

Before you remove a Routing Engine, remove the cables that connect to it.



CAUTION: Before you replace a Routing Engine, you must take the host subsystem offline. If there is only one host subsystem, taking the host subsystem offline shuts down the router.



CAUTION: If the Routing Engine to be replaced is currently functioning as the master Routing engine, switch it to be the backup before removing it.

To remove a Routing Engine from an SCB (see [Figure 94 on page 244](#)):

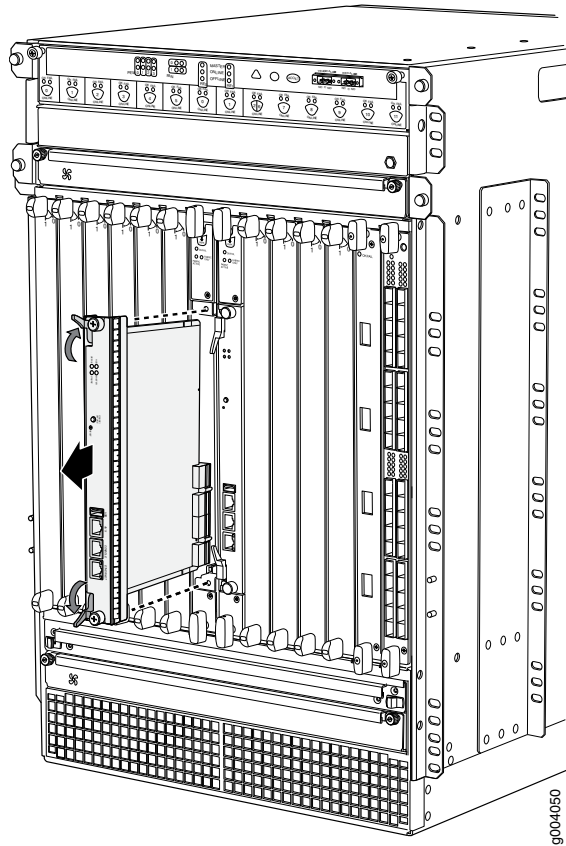
1. Take the Routing Engine offline gracefully.
2. Place an electrostatic bag or antistatic mat on a flat, stable surface.
3. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
4. Verify that the Routing Engine LEDs are off.
5. Loosen the captive screws on the top and bottom of the Routing Engine.
6. Flip the ejector handles outward to unseat the Routing Engine.

7. Grasp the Routing Engine by the ejector handles, and slide it about halfway out of the chassis.
8. Place one hand underneath the Routing Engine to support it, and slide it completely out of the chassis.
9. Place the Routing Engine on the antistatic mat.



NOTE: To maintain proper airflow through the chassis, do not leave an SCB installed in the chassis without a Routing Engine for extended periods of time. If a Routing Engine is removed, a replacement Routing Engine should be installed as soon as possible.

Figure 94: Removing a Routing Engine



Installing an MX480 Routing Engine

To install a Routing Engine into an SCB (Figure 95 on page 246):

1. Attach an ESD grounding strap to your bare wrist and connect the strap to one of the ESD points on the chassis.
2. Ensure that the ejector handles are not in the locked position. If necessary, flip the ejector handles outward.
3. Place one hand underneath the Routing Engine to support it.
4. Carefully align the sides of the Routing Engine with the guides inside the opening on the SCB.
5. Slide the Routing Engine into the SCB until you feel resistance, and then press the Routing Engine's faceplate until it engages the connectors.



CAUTION: Align the Routing Engine correctly to avoid damaging it.

6. Press both of the ejector handles inward to seat the Routing Engine.
7. Tighten the captive screws on the left and right of the Routing Engine.
8. Connect the management device cables to the Routing Engine.

The Routing Engine might require several minutes to boot.

After the Routing Engine boots, verify that it is installed correctly by checking the **FAIL**, **RE0**, and **RE1** LEDs on the craft interface. If the router is operational and the Routing Engine is functioning properly, the green **ONLINE** LED lights steadily. If the red **FAIL** LED lights steadily instead, remove and install the Routing Engine again. If the red **FAIL** LED still lights steadily, the Routing Engine is not functioning properly. Contact your customer support representative.

To check the status of the Routing Engine, use the CLI command:

```
user@host> show chassis routing-engine
Routing Engine status:      Slot 0:      Current state      Master ...
```

For more information about using the CLI, see the Junos OS documentation.