



CHAPTER 7

Troubleshooting the Installation

This chapter describes how to troubleshoot the installation of SIPs and SPAs on the Cisco uBR10012 router. This chapter contains the following sections:

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Troubleshooting

This section describes troubleshooting the installation of the SIPs and SPAs. Possible problems, observations and comments, and solutions are indicated for the following troubleshooting symptoms:

- Cisco Wideband SIP FAIL LED illuminates amber or transitions between amber and off
- Cisco Wideband SPA is deactivated
- Cisco Wideband SPA does not work correctly

SIP FAIL LED Illuminates Amber or Transitions Between Amber and Off

Possible Problem	Observations and Comments	Solutions
SIP is booting up; this is normal operation	SIP FAIL LED is amber.	Wait 5 seconds until the boot process completes and the FAIL LED turns off. If the SIP FAIL LED stays amber, the SIP has encountered an error.
SIP does not go beyond the bootup stage	SIP FAIL LED transitions repeatedly between amber and off.	This probably indicates broken hardware. Follow the recommended action for the displayed error message. For information on error messages, see the “Using debug Commands” section on page 7-2.

Cisco Wideband SPA Is Deactivated

Possible Problem	Observations and Comments	Solutions
SPA is not fully seated in the SIP	Output of the show hw-module bay command. SPA STATUS LED is off.	Follow this procedure: <ul style="list-style-type: none"> Remove the SPA from the SIP. Inspect the SIP and the SPA. Verify there are no bent pins or parts and that there is nothing lodged in the two devices that could prevent a good connection. Insert the SPA in the SIP by sliding the SPA all the way into the SIP until the SPA is firmly seated in the SPA interface connector. When fully seated in the SIP, the SPA might be slightly behind the SIP faceplate.
SPA is not supported on the SIP	Error message indicating the SPA is not supported. Output of the show diag command. SPA STATUS LED is off.	Install a SPA supported on the SIP.

Cisco Wideband SPA Does Not Work Correctly

Possible Problem	Observations and Comments	Solutions
SPA does not work correctly	Cisco Wideband SPA cannot communicate with edge QAM device. Cisco Wideband SPA active Gigabit Ethernet port is not up. Wideband channels are not able to transmit packets.	For information on SIP and SPA software configuration, refer to the <i>Cisco uBR10012 Universal Broadband Router SIP and SPA Software Configuration Guide</i> . For information on troubleshooting wideband components, see the <i>Cisco Cable Wideband Solution Design and Implementation Guide</i> .

Using debug Commands

The **debug hw-module bay** command is intended for use by Cisco technical support personnel. For more information about the **debug hw-module bay** command, see the *Cisco uBR10012 Universal Broadband Router SIP and SPA Software Configuration Guide*.

**Caution**

Because debugging output is assigned high priority in the CPU process, it can render the system unusable. For this reason, use **debug** commands only to troubleshoot specific problems or during troubleshooting sessions with Cisco technical support staff. Moreover, it is best to use **debug** commands during periods of lower network traffic and fewer users. Debugging during these periods decreases the likelihood that increased **debug** command processing overhead will affect system use.

For information about other **debug** commands supported on the Cisco uBR10012 router, refer to the *Cisco IOS CMTS Cable Command Reference*.

To view the explanations and recommended actions for the Cisco uBR10012 router system messages, including messages related to Cisco uBR10012 SIPs and SPAs, refer to the *Cisco IOS CMTS Cable System Messages Guide* at the following URL:

<http://www.cisco.com/en/US/docs/cable/cmts/system/message/uberrmes.html>

Packing a SPA for Shipment

This section provides step-by-step instructions for packing a SPA and the cable-management brackets for shipment. Before beginning this procedure, you should have the following original Cisco packaging materials:

- Thermoform container (transparent plastic-molded clamshell)
- Carton



Caution

The Cisco original packaging is to be used for the shipment of all SPAs and cable-management brackets. Failure to properly use Cisco packaging can result in damage or loss of a product.



Warning

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.



Note

These instructions assume that the SPA and cable-management brackets have been removed from the router according to the recommended procedures specified in this guide.

To pack a SPA and the cable-management brackets for shipment, perform the following steps:

Step 1

Open the Thermoform container and place the SPA and each of the cable-management brackets into the appropriate cavities.



Caution

Always handle the SPA by the carrier edges and handle; never touch the SPA components or connector pins.

Step 2

Close the Thermoform container. Be sure to lock the snaps securely.

Step 3

Check that the Thermoform container is fully closed. Apply tape or a label closure over the opening to ensure the container stays closed during shipping.

Step 4

Place the Thermoform container into the carton.

Step 5

Close the carton.

Step 6

Apply tape over the carton flap to ensure the carton stays closed during shipping.

Packing a SIP for Shipment

This section provides step-by-step instructions for packing a SIP for shipment. Before beginning this procedure, you should have the following original Cisco packaging materials:

- Static shielding bag
- Smaller inner carton
- Larger exterior carton
- Two foam packing cushions

**Caution**

The Cisco original packaging is to be used for the shipment of all SIPs. Failure to properly use Cisco packaging can result in damage or loss of a product.

**Warning**

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself.

**Note**

These instructions assume that the SIP has been removed from the router according to the recommended procedures specified in this guide.

To pack a SIP for shipment, perform the following steps:

- Step 1** Insert the SIP into the static shielding bag.
- Step 2** Insert the bagged SIP into the smaller inner carton. Be careful to position the SIP so that the bottom motherboard lip is held by the packaging cutout.
- Step 3** Close the smaller inner carton and tape the sides closed.
- Step 4** Place the sealed smaller inner carton containing the SIP into the two foam packing cushions (they only fit one way).
- Step 5** Place the sealed smaller inner carton and packing cushions into the larger exterior carton, and seal the larger exterior carton with tape for shipment.