

Overview

A recovery upgrade allows you to do a complete install of the ULTRIX-FR5-UCCI software in the event that the module becomes unresponsive and cannot be upgraded normally.

This document outlines how to:

1. Configure the ULTRIX-FR5-UCCI Hardware.
2. Monitor the Upgrade.
3. Reset the Boot Jumper.
4. Confirm Operation with the New Software.

Requirements

You will need the following:

- A PC with a microSD™ card reader
- A #1 Phillips screwdriver

Configure the ULTRIX-FR5-UCCI Hardware

Before performing the upgrade, you will need to configure the ULTRIX-FR5-UCCI jumpers for an upgrade via the microSD™ card and then re-install the microSD™ card that you updated in “**Configure the ULTRIX-FR5-UCCI Hardware**”.

This section outlines how to remove the ULTRIX-FR5-UCCI from the chassis, set the required jumper on the PCB to enable the upgrade, replace the microSD™ card, and re-install the ULTRIX-FR5-UCCI into the chassis.

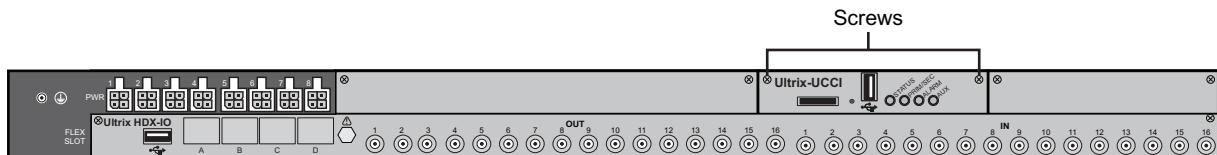


ESD Susceptibility — *Static discharge can cause serious damage to sensitive semiconductor devices. Avoid handling circuit boards in high static environments such as carpeted areas and when synthetic fiber clothing is worn. Always exercise proper grounding precautions when working on circuit boards and related equipment.*

To remove the Primary ULTRIX-FR5-UCCI from the router

★ If your Ultrix router is running software earlier than v7.2, you will need to power down the router before removing the ULTRIX-FR5-UCCI.

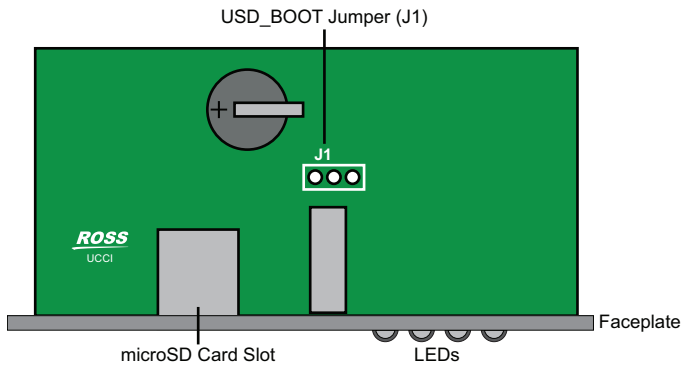
1. Locate the Primary ULTRIX-FR5-UCCI in the ULTRIX-FR5 back panel.



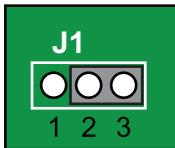
2. Use a #1 Phillips screwdriver to fully loosen the two retaining screws on the ULTRIX-FR5-UCCI faceplate.
3. Grasp the faceplate with both hands.
4. Gently pull the ULTRIX-FR5-UCCI towards you and away from its slot.
5. Set the ULTRIX-FR5-UCCI on a flat, clean, and static-free surface.

To set the Boot jumper on the ULTRIX-FR5-UCCI

1. Position the ULTRIX-FR5-UCCI so that its faceplate faces you and its main PCB is accessible.
2. Locate the **USD_BOOT** jumper (**J1**) on the ULTRIX-FR5-UCCI board.

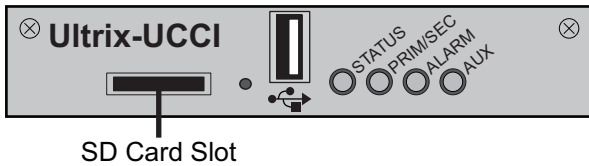


3. Set the jumper to the **SD** mode position (Pins 2 and 3).



To eject the microSD™ card

1. Locate the microSD™ Card slot on the ULTRIX-FR5-UCCI faceplate.



2. Eject the updated microSD™ card from its the slot.

Update the ULTRIX-FR5-UCCI Memory Card

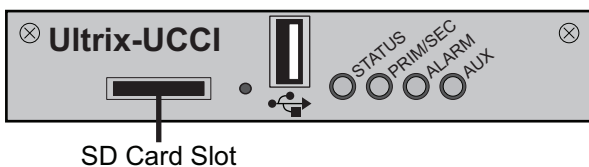
Before proceeding, you will need to update the ULTRIX-FR5-UCCI microSD™ card contents to include the required files for the upgrade.

To update the microSD™ contents for the upgrade

1. Contact Ross Technical Support to receive an UCCI Recovery File (UCCI_7.x.0-XX-recovery.zip).
2. Save the files to your PC.
3. Extract the UCCI Recovery File to your PC.
4. Insert the ULTRIX-FR5-UCCI microSD™ card into the card reader of your PC.
5. Copy the extracted UCCI Recovery files to the microSD™ card.
6. Eject the microSD™ card from the card reader of your PC.

To insert the updated microSD™ card to the module

1. Locate the microSD™ Card slot on the ULTRIX-FR5-UCCI faceplate.



2. Insert the updated microSD™ card into the slot of the ULTRIX-FR5-UCCI faceplate.

Re-install the Primary ULTRIX-FR5-UCCI Module

Once you updated the files on the microSD™ card and re-inserted it back into the primary ULTRIX-FR5-UCCI, you will need to re-install the module into the router chassis. This will initiate the software upgrade of the ULTRIX-FR5-UCCI.

To re-install the Primary ULTRIX-FR5-UCCI back into the router

1. Grasp the ULTRIX-FR5-UCCI with both hands.
 2. Align the ULTRIX-FR5-UCCI with the available slot.
 3. Gently slide the ULTRIX-FR5-UCCI into the slot until you feel it start to resist as the edge connectors begin to mate.
 4. Use a #1 Phillips screwdriver and the retaining screws to fasten the ULTRIX-FR5-UCCI to the chassis.
- ★ Tightening these screws is required to ensure proper alignment between the ULTRIX-FR5-UCCI and the slot backplane.
5. If your Ultrix router is running software earlier than v7.2, you will need to power up the router before proceeding.

Monitor the Upgrade

Once the ULTRIX-FR5-UCCI is returned to its slot on the chassis the following will occur:

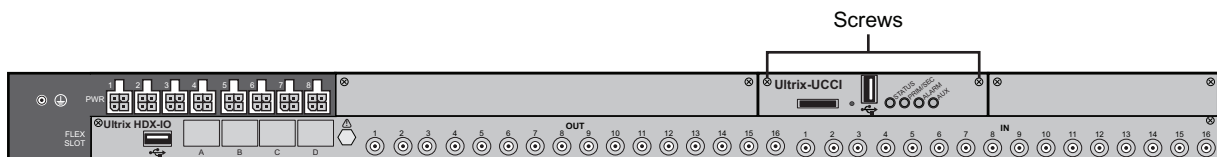
1. The ULTRIX-FR5-UCCI will automatically boot from the microSD™ card.
The **STATUS** LED on the faceplate is lit solid red.
2. The new microSD™ card automatically looks for and launches the upgrade image.
3. The new Upgrade image (*.bin file) stored on the SD card is installed.
The **STATUS** LED on the faceplate blinks red and green.
4. The existing image is erased on the ULTRIX-FR5-UCCI flash.
The **STATUS** LED on the faceplate blinks red and green.
5. The system partitions (boot, dtb, kernel, root) are erased.
The **STATUS** LED on the faceplate blinks red and green.
6. The required application/data files are installed as needed to the new microSD™ card.
The **STATUS** LED on the faceplate blinks red and green.
7. The upgrade is completed.
The **STATUS** LED on the faceplate is lit solid green.

Reset the Boot Jumper

Once the software is upgraded successfully, you will need to return the **J1** jumper to its default position. This sets the ULTRIX-FR5-UCCI into normal operation mode and you can verify the operation is not experiencing errors.

To remove the Primary ULTRIX-FR5-UCCI from the router

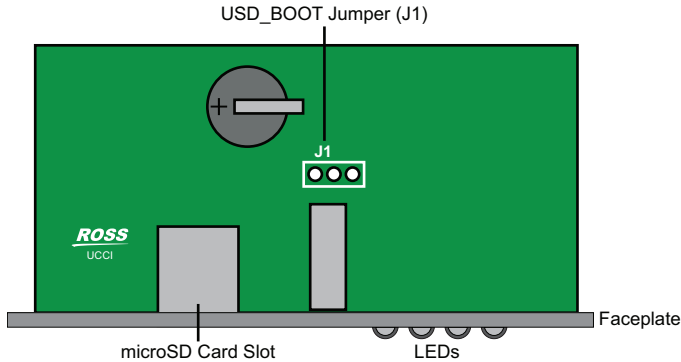
1. Locate the Primary ULTRIX-FR5-UCCI in the ULTRIX-FR5 back panel.



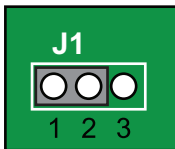
2. Use a #1 Phillips screwdriver to loosen the two retaining screws on the ULTRIX-FR5-UCCI faceplate.
3. Remove the ULTRIX-FR5-UCCI from the chassis and set aside on a flat, clean, and static-free surface.

To set the Boot jumper on the ULTRIX-FR5-UCCI back to the default

1. Locate the **USD_BOOT** jumper (**J1**) on the ULTRIX-FR5-UCCI board.



2. Set the jumper to the **NORM** mode position (Pins 1 and 2).



To re-install the Primary ULTRIX-FR5-UCCI back into the router

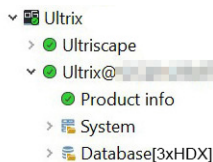
1. Grasp the ULTRIX-FR5-UCCI with both hands.
 2. Align the ULTRIX-FR5-UCCI with the available slot.
 3. Gently slide the ULTRIX-FR5-UCCI into the slot until you feel it start to resist as the edge connectors begin to mate.
 4. Use a #1 Phillips screwdriver and the retaining screws to fasten the ULTRIX-FR5-UCCI to the chassis.
- ★ Tightening these screws is required to ensure proper alignment between the ULTRIX-FR5-UCCI and the slot backplane.
5. If the ULTRIX-FR5 is running software prior to v7.2, you will need to reboot the router.

Confirm Operation with the New Software

Once the upgrade is complete (the final time the UCCI is removed to switch the jumper back from SD to QSPI). If hot-plug is not supported then the router will need to be either powered down before the UCCI is inserted or rebooted once it is.

To use DashBoard to verify the new software is operational

1. Locate the Ultrix node in the Tree View of DashBoard.
2. Expand the Ultrix node to display a list of sub-nodes.
3. Expand the second sub-node.



4. Double-click the **Product Info** sub-node to display that interface in the right pane of the DashBoard window.
5. On the **Product** tab in the left pane of the window, verify the following fields report the correct information:
 - Primary UCCI Version
 - Primary UCCI SD Card