QAM4UP Upgrades
QAM400A
DTV Monitor

Instructions

Tektronix

Contacting Tektronix

Kit Description

This document provides instructions for installing QAM4UP software upgrades into an existing QAM400A DTV Monitor. The QAM4UP upgrade kit contains a license upgrade certificate that allows you to enable the new options on the monitor.

The QAM400A is supplied with a QAM (Annex A, Annex B, or Annex C) interface card as a standard accessory. No hardware options are available.

The following table lists the QAM4UP upgrades that are supported by this document.

Table 1: Supported software upgrades

Product	Option	Description
QAM4UP	-DIAG	Software upgrade to add the following software features:
		– Triggered recording capability up to 160 MB
		– Template testing (for user-defined service plan testing)
		– In-depth PCR analysis with graphical result views
		– Bit rate testing
		– Service logging
		– RF Polling

Supported Product   The QAM400A DTV Monitor is supported by this upgrade kit.

Upgrade Requirements   To perform a software option upgrade, use a PC to access the RUI (Remote User Interface) of the DTV monitor. Connect the PC and the monitor to the same Ethernet network.

The following table lists the system requirements for the QAM400A DTV monitor.

Table 2: PC system requirements

Characteristic	Description
Minimum specification	1.2 GHz Intel Pentium Processor (Preferred: 2 GHz)
Operating system	Microsoft Windows 2000, Windows XP, and Windows Vista (Recommended: Windows XP Pro)
Disk space	2 GB free disk space
Ethernet	10/100-base T
Installed software	Microsoft Internet Explorer, Version 7.0 minimum; Sun Java Runtime Environment Version 6 Update 10 minimum (1.6.0_18 or later)
RAM	1 GB
CD-ROM drive	8x
Display	1024 x 768 pixel video monitor with 16 bit (65000) available colors

Kit Parts List

The following table lists the parts supplied with each of the upgrade kits.

Table 3: QAM4UP-DIAG upgrade kit parts list

Quantity	Part number	Description
1 ea	063-4135-XX	MTM400A, IPM400A, QAM400A, and RFM300 DTV Monitor Documentation CD
1 ea	063-4136-XX	MTM400A, IPM400A, QAM400A, and RFM300 Software Application CD
1 ea	NA	Option key document for a specified QAM400A DTV monitor
1 ea	NA	Product Upgrade identification sticker
1 ea	075-1012-00	QAM4UP Upgrade Instructions (This document)

Software Option Upgrade

The QAM4UP option upgrade requires that you apply a new option key to enable the new options.

Option Keys

Option keys are a unique string of alphanumeric characters of the form nnnnn-nnnnn-nnnnn-nnnnn. A single option key can enable one or more software options.

Each option key is unique and is generated for a specific QAM400A monitor using the serial number and MAC address of that monitor. An option key that is generated for one monitor will not work when applied to another monitor.

The serial number identifies a specific DTV monitor. The MAC address identifies the Transport Stream Processor board that is installed in the monitor. If there is a hardware failure and the Transport Stream Processor board is replaced, a new option key will need to be issued because the monitor will have a different MAC address. The MAC address is printed on the label on the top cover of the monitor and above the network port on the rear panel.

This kit includes both a document and a sticker with the new option key for your monitor. Apply the sticker to the top cover of the monitor after you verify the upgrade.

⚠ *CAUTION. To avoid losing your software options, do not misplace the option key document or sticker that was included with this upgrade kit. If the battery-backed RAM in your DTV monitor is reset, you must reapply the option key to re-enable any software options that were purchased for your monitor.*

Upgrading the Software

Perform the following procedure to apply the option key that was supplied with this kit:

1. Power on the monitor and wait for it to initialize. When the initialization process is complete, the monitor beeps and the front-panel LEDs illuminate.

2. Use a PC that meets the requirements listed. (See Table 2 on page 2.) Ensure that the PC is connected to the same Ethernet network as the monitor. Perform the following steps to open the RUI:

NOTE. This procedure uses Microsoft Internet Explorer to open the monitor RUI. You can also access the RUI using the Tektronix Web Monitoring Systems Manager (WebMSM). The instructions for using WebMSM are located in the WebMSM User Manual (Tektronix part number 077-0116-XX).

CAUTION. The Java applet used in the following steps will not run unless a temp directory is properly configured on the PC. A temp directory is set up by default in the Windows XP operating system; previous operating systems may require operator action.

The Java applet will not run unless the Sun Java Virtual Machine is installed. Type java -version at the command prompt to verify that it is installed and that the version is 1.6.0_18 or greater. If it is not installed, you can download the latest version from the Sun Web site, www.java.com.

If you have to update the Java version on the PC, you will need to restart this procedure at step 2.

    a. Launch Microsoft Internet Explorer.

    b. In the address bar of the Web browser, enter the network identity or IP address of the monitor, for example: http://TSMonitor01 or http://111.222.333.444.

    c. Press **Enter**. A Java applet is downloaded from the monitor and launched. The file size is approximately 1.5 MB; the download time will depend on the network speed and traffic.

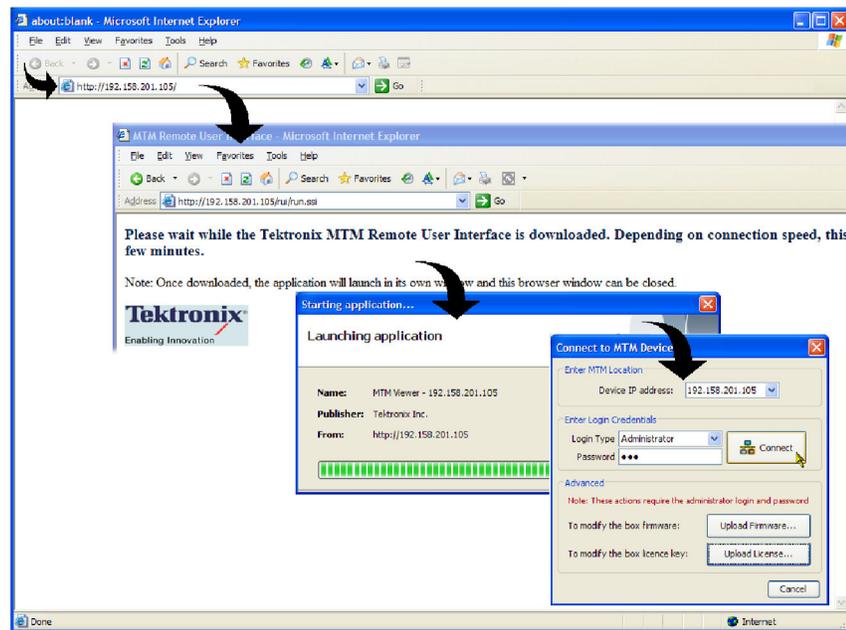3. After the Java applet is downloaded, the Connect to MTM Device dialog box is displayed. (See Figure 1.)

Figure 1: Logging on to QAM400A monitor

4. In the Connect to MTM Device dialog box, select **Administrator** from the Login Type drop-down list, and enter the password. The default password for Administrator login type is tek.

NOTE. You must log in to the monitor using the Administrator login type. The User login type does not have sufficient permissions to perform software option upgrades.

5. Click **Connect** to log on to the monitor and display the RUI window.

6. Click **Device** in the button bar of the RUI window to display the Device Information view. (See Figure 2.)

7. Verify that the Network MAC Address shown in the Device Information view matches the Unique ID number listed in the option key document that was shipped with the upgrade kit.

8. Make a note of the software options that are currently enabled on the monitor.

NOTE. After you upgrade the monitor, you will verify the upgrade by checking that the new option that you purchased has been enabled.
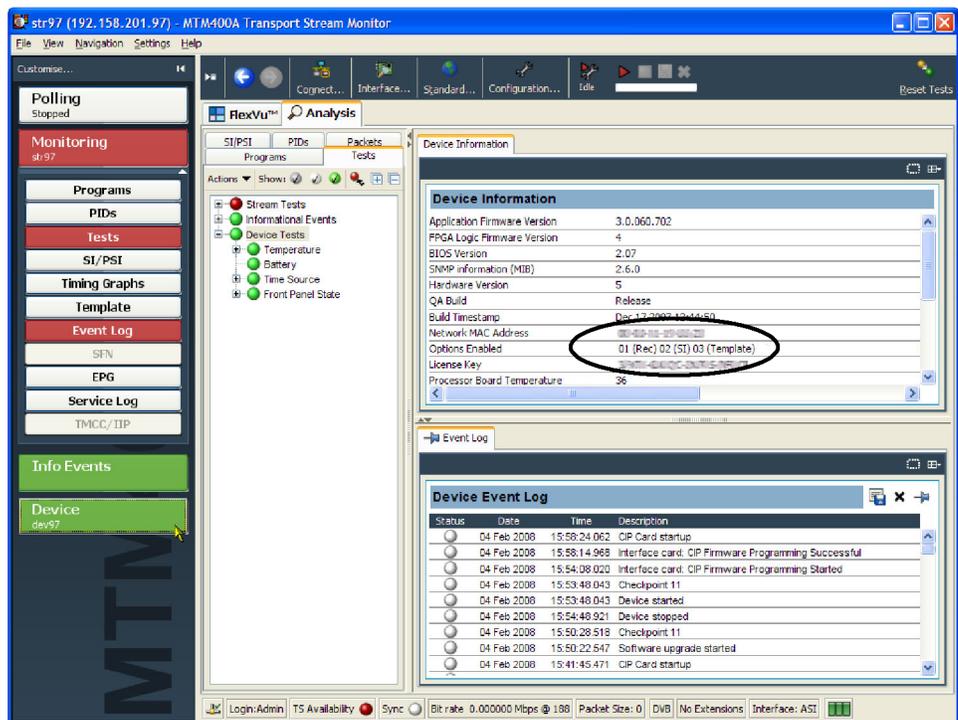
Figure 2: Device Information view

9. After you verify the MAC address and note the installed software options, close the RUI window, repeat steps 2 through 4 to redisplay the Connect to MTM Device dialog box, and proceed to step 10.

NOTE. You should initiate the software options upgrade process from the Connect to MTM Device dialog box that appears before the monitor RUI is launched. Only advanced users should use the Connect to MTM Device dialog box that is accessed from the Connect button in the monitor RUI toolbar.

---

10. In the Connect to MTM Device dialog box, click **Upload License** to open the Upload License dialog box. (See Figure 3.)

⚠ *CAUTION. The option key string is case-sensitive and must be entered exactly as it appears on the option key document, including any dashes.*

---

11. In the Upload License dialog box, enter the new option key that was supplied with this kit, and click **Upload**.

12. Click **Yes** to confirm the upload in the Upload License message box. (See Figure 4.)
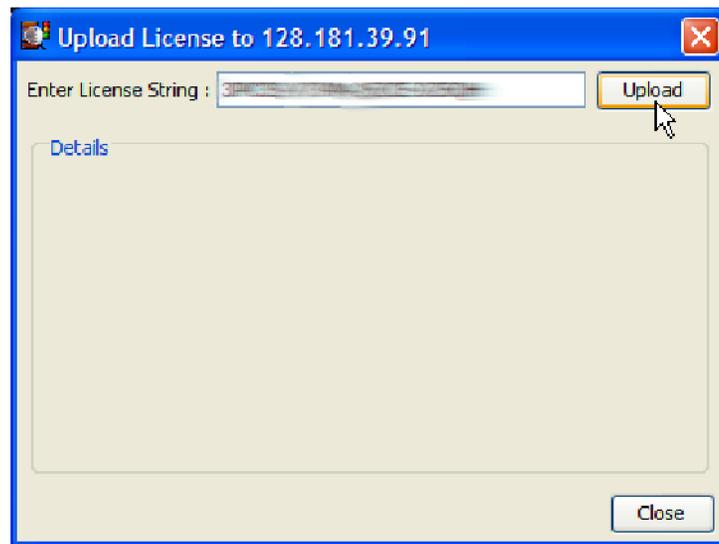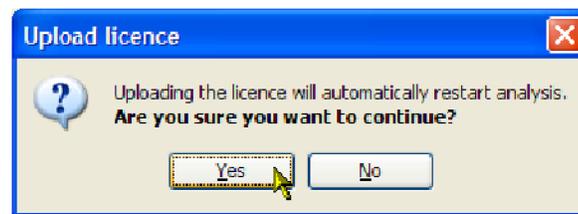
Figure 3: Upload license dialog box

Figure 4: Upload license message box

13. Progress messages will be displayed in the Upload License dialog box as the new option key is loaded into the monitor:

   − If the option key is accepted, the message "License upload ok" appears, and the monitor automatically reboots. The reboot process implements the software options enabled by the new option key. The message "Reboot complete" appears after the monitor reboots.

   − If the option key is rejected, the message "License upload error - invalid license" appears in the Upload License dialog box. (See page 8, *Troubleshooting*.)

14. Click **Close** to close the Upload License dialog box, and proceed to verify the software options. (See page 8, *Verifying the Software Option Upgrade*.)

Troubleshooting

If the option key upload is rejected, the message "License upload error − invalid license" appears in the Upload License dialog box. Check the following:

■ Reenter the option key in the Upload License dialog box. The option key string is case-sensitive and must be entered exactly as it appears on the option key document, including any dashes.

■ Inspect the option key documentation that was supplied with the upgrade kit and verify that you are applying the option key to the QAM400A DTV monitor listed in the documents.

■ If you are upgrading a monitor that is connected to a network containing more than one DTV monitor, ensure that the RUI is viewing the correct monitor. Select Info in the Device view and verify that the MAC Address of the monitor matches the Unique ID number listed in the option key documentation supplied with the upgrade kit.

If the upgrade is still unsuccessful, contact Tektronix Technical Support, ensuring that the following information is available:

■ Serial Number of the DTV monitor

■ MAC Address of the TS processor board

■ Option key string that was supplied with the upgrade kit

■ Option key string that was previously assigned to the monitor (should be listed on the label attached to the top cover of the monitor)

Verifying the Software Option Upgrade

Perform the following steps to verify the software option upgrade:

1. Display the Device Information view. Refer to steps 1 through 6 of the previous procedure. (See page 4, *Upgrading the Software*.)

2. Verify that the new software option that you purchased with this upgrade is now enabled. The option is listed in the option key documentation.
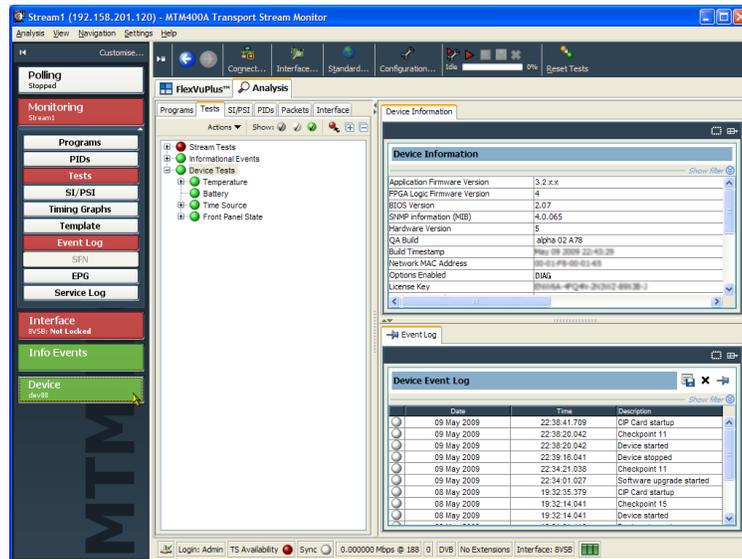
Figure 5: Device Information view

⚠ **CAUTION.** *Be sure to apply the option key label from the Product Upgrade sticker. When it is necessary after a repair, the Tektronix service center uses the option key listed on the monitor label to reenable the software options for your monitor. If you do not apply the new option key label supplied with the upgrade kit to the top cover of the monitor and your monitor is sent to Tektronix for repair, the monitor might be returned to you without all of your software options enabled.*

3. After you verify that the proper software options are enabled, apply the option-key label from the Product Upgrade sticker that was supplied with the upgrade kit to the top cover of the monitor, covering the previous option key listed on the monitor label.

4. Apply the option-upgrade label from the Product Upgrade sticker to the top cover of the monitor next to the options listed on the monitor label.

End of Document