

# Kameleon

MULTI-FUNCTION MODULES

## Release Notes



SOFTWARE VERSION 4.1.2

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AUGUST 2005

*the most watched worldwide*

# Contacting Grass Valley

Region	Voice	Fax	Address	Web Site
North America	(800) 547-8949 Support: 530-478-4148	Sales: (530) 478-3347 Support: (530) 478-3181	Grass Valley P.O. Box 599000 Nevada City, CA 95959-7900 USA	www.thomsongrassvalley.com
Pacific Operations	+852-2585-6688 Support: 852-2585-6579	+852-2802-2996		
U.K., Asia, Middle East	+44 1753 218 777	+44 1753 218 757		
France	+33 1 45 29 73 00			
Germany, Europe	+49 6150 104 782	+49 6150 104 223		

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## Grass Valley Web Site

The [www.thomsongrassvalley.com](http://www.thomsongrassvalley.com) web site offers the following:

**Online User Documentation** — Current versions of product catalogs, brochures, data sheets, ordering guides, planning guides, manuals, and release notes in .pdf format can be downloaded.

**FAQ Database** — Solutions to problems and troubleshooting efforts can be found by searching our Frequently Asked Questions (FAQ) database.

**Software Downloads** — Software updates, drivers, and patches can be downloaded.

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# *Kameleon Series Multi-Function Modules Release Notes*

## **Introduction**

This document provides information on the latest release of the software for use with the Kameleon Series Multi-Function modules.

**Note** Please read this document completely before attempting to download the latest software.

This document details:

- Software Update Overview ([page 6](#)) including:
  - KAM-AV/SD Requirements,
  - Kameleon Frame 2000NET Requirements.
  - NetConfig Requirements,
  - Newton Control Panel Requirements, and
  - Operational Notes.
- Kameleon Version 4.1.2 Software Update ([page 12](#)), and
- Accessing Kameleon documentation from Grass Valley ([page 23](#)).

## Software Update Overview

This recent release of the KAM-AV/SD software (version 4.1.2) has increased the number of parameters that the module sends to the Newton Control Panel and Netconfig. This has added enhancements as requested by customers. It has also introduced some operational changes and requirements for system and utility software you should be aware of in order for all components to work together. The software update also requires a certain KAM-AV/SD module circuit board level and software.

Follow the steps in the order below to perform the Kameleon update:

1. Verify your Kameleon module hardware and software versions are at the proper level to update (*KAM-AV/SD Requirements on page 7*).
2. Acquire or update NetConfig if required (*NetConfig Requirements on page 8*).
3. Update the 2000NET module in the frame to version 4.0.0 if required (*Kameleon Frame 2000NET Requirements on page 8*).
4. Update Newton Control Panel software if required (*Newton Control Panel Requirements on page 9*).
5. Read the Operational Notes before proceeding with the Kameleon software update (*Operational Notes on page 11*).
6. Perform the KAM-AV/SD software update (*Version 4.1.2 Software Release on page 12*).

## KAM-AV/SD Requirements

This version of Kameleon software can only be loaded on modules at the following assembly number and dash and letter version:

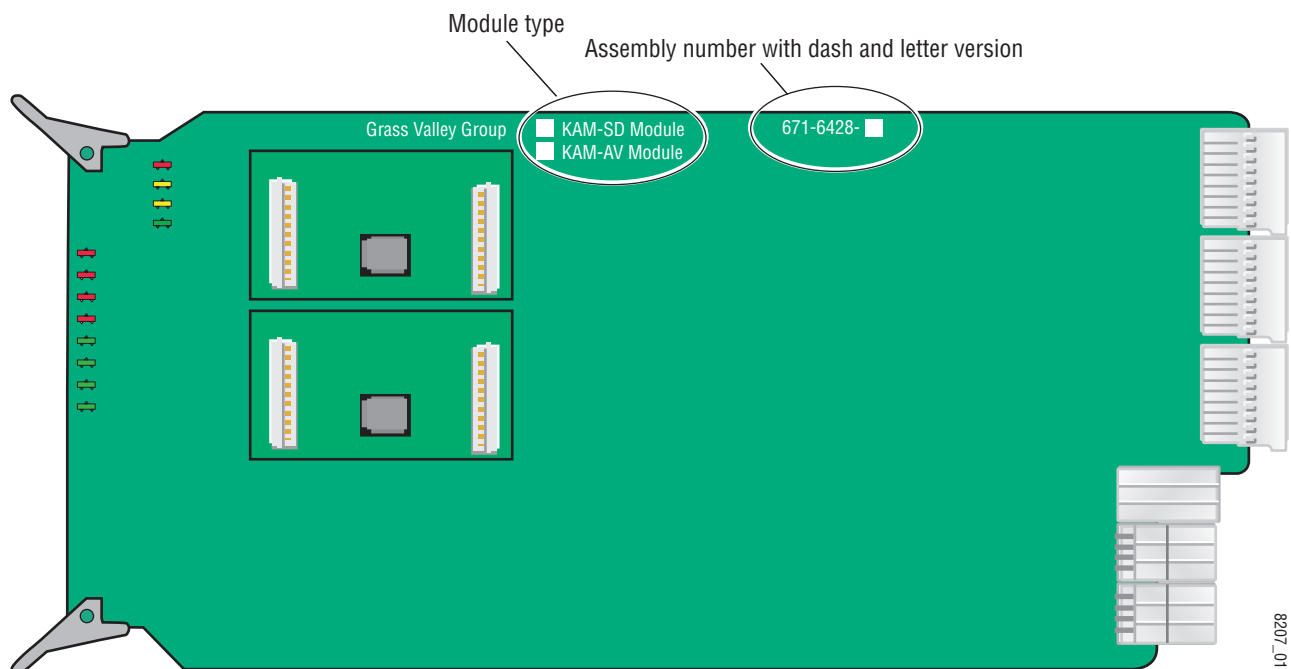
- KAM-SD, assembly number 671-6428-00, letter version S or above
- KAM-AV, assembly number 671-6428-20, letter version R or above (including the 671-6428-21 version)

To determine the assembly number and dash and letter version of your module refer to [Figure 1](#). The module type will be checked in the white box next to the module name. The dash and letter version of the module will be inked in the white box to the right of the assembly number.

Kameleon modules that do not meet this requirement cannot be updated due to a different printed circuit board now in use. Contact your Customer Service or Sales representative for information on acquiring new modules.

Kameleon modules must be running Kameleon software version 2.0.2 or later to be upgraded to the next version. Any KAM-AV/SD modules that are running the current 4.1.0 release can be updated to this latest release. The current Kameleon software version is reported on the module Status web page.

Figure 1. Locating Assembly Number and Revision Letter



## NetConfig Requirements

Use the NetConfig Networking application to update all software. The latest version of the NetConfig Networking application must be at version 2.0.6 for proper operation.

To determine your NetConfig version, open NetConfig click on the **About** link on the top of the NetConfig Tool Bar.

If you do not have NetConfig or the latest version, you can download it from the Thomson Grass Valley ftp site at this URL:

<ftp://ftp.thomsongrassvalley.com/pub/router/NetConfig/Version%202.0.6/>

1. Right-click on the NetConfig (v2.0.6) link to download the zipped file to the C:\temp folder or other convenient location on your PC.
2. Extract the zipped files onto your local drive:
3. Double-click on the NetConfig.EXE file to install NetConfig.

**Note** Installing NetConfig into the default location given in the install script (C:\Programs\Grass Valley Group) is recommended for future NetConfig and module software updates.

## Kameleon Frame 2000NET Requirements

Kameleon modules must be installed in a 2000TFN frame with a 2000NET module running software version 4.0.0 or later.

**Note** The 2000NET software version can be read on the Frame Status web page or the 2000NET Status web page.

The latest 2000NET software can be downloaded from the Thomson Grass Valley ftp site at this URL:

<ftp://ftp.thomsongrassvalley.com/pub/modular/2000/2000net/>

This software can be installed using the NetConfig Networking application as described in the *2000NET Release Notes* available on the ftp site in PDF format.



## Newton Control Panel Requirements

Both the NewtonPC and the Newton hardware control panels must be at version 2.0.0 for proper operation. The Newton Panel Configurator Plug-in that resides in the NetConfig directory must also be updated to version 2.0.2.

The Newton hardware panel software and the latest Newton Configurator Plug-in can be downloaded from the Thomson Grass Valley ftp site as described below.

### Newton Hardware Control Panel

To determine the software version of your Newton hardware panel, hold down the **Ident** button (lower left button on the hardware panel) until the software version and IP address of the panel appear on the display.

The latest Newton hardware panel software can be downloaded from the Thomson Grass ftp site at this URL:

<ftp://ftp.thomsongrassvalley.com/pub/modular/Newton/v2.0.0/>

1. Download the zip file to your local drive and unzip the file.
2. Run the Newt-RM1-Setup-2.0.0.EXE application to install the hardware panel software into the default Newton directory (Programs/Grass Valley Group/Newton).

**Note** Do not install the NetConfig present in the **Select Components** window. Uncheck the NetConfig selection. This is an older version and should not be installed.

3. Use NetConfig to update the hardware panel software. Refer to the NetConfig or the Newton manual in PDF format in the NetConfig or Newton directory for instructions.

### NewtonPC Control Panel

To determine the software version of NewtonPC, open NewtonPC and right-click on the blue bar at the top of the screen. Right-click on **About NewtonPC** in the pulldown.

Contact Customer Service for updating NewtonPC.

## NetConfig Newton Panel Configurator Plug-in



The Newton Panel Configurator Plug-in must be at version 2.0.2. To view the version you currently have, open NetConfig on your PC and select the Newton Panel Configurator icon (shown at left) in the NetConfig Tool Bar. The current version is shown in the top right corner of the Configurator.

A file named **PanFigR.dll** must be downloaded from the Thomson Grass Valley ftp site and placed into the NetConfig directory to update the Configurator to version 2.0.2.

The required .dll file can be downloaded from the Thomson Grass Valley Customer Service web site at this URL:

<ftp://ftp.thomsongrassvalley.com/pub/modular/Newton/NetConfig%20Plugin%202.0.2/>

1. Right-click on the PanFigR.dll to save it to your local drive.
2. Shut down NetConfig.
3. Open the NetConfig directory on your local drive (installed by default in Programs/Grass Valley Group/NetConfig) and drag the new .dll file into the main NetConfig directory.
4. Select **Yes** to replace the current PanFigR.dll with the new one provided when the **Confirm File Replace** window comes up.
5. Open NetConfig and select the Newton Configurator icon.
6. Verify that the version is now 2.0.2.

## Operational Notes

Please read the following important operational notes before downloading the Kameleon 4.1.2 software.

### E-MEM Files

E-MEM files built using earlier version software will no longer recall properly due to the change in the number of control parameters in the latest release. Any current E-MEM files will need to be rebuilt.

**Note** Before downloading the latest Kameleon release, save each important E-MEM setup to a file and save to an external location. Recall important E-MEMs on your current Kameleon modules and record the values to make the rebuilding process easier.

After updating the module with the latest software, go to the E-MEM web page and recall factory settings and verify module operation first before saving any new E-MEMs.

### Control Software

A fully loaded Kameleon frame takes approximately 5 minutes after power up or reboot to come online and be seen by the network.

During the first 30 minutes of operation after power up or reboot, the web page response to modules in the frame will be slower than normal. This is necessary for the 2000NET module to read information from all of the modules in the frame and build an updated web page map. During this time, web pages are still accessible however, the 2000NET module may need to read them directly from the module rather than using its local copy, resulting in the delayed response.

During the map building period described above, the Newton control panel may occasionally disconnect from a module being adjusted. It will re-connect immediately to allow further adjustment. Once the map building period is complete, these disconnections will no longer occur. This condition will be fixed in a future Newton software release.

## Version 4.1.2 Software Release

Kameleon software release 4.1.2 resolves the following issues with the latest Kameleon software (version 4.1.0):

- (48768) In Frame Sync mode, when SDI video with embedded audio is frozen (Manual or Auto), the embedded audio output is now muted.
- (56349) When switching from an SDI to a composite input, the module was not loading the proper Xilinx image when the Flywheel On control on the Video Input Select web page was left on.
- (55484) After a module is plugged in with no video input to the module, connecting an analog video input results in the correct video output from the module.

### Important Notes

Read the following important notes before upgrading:

- This upgrade will disable the video and audio outputs from the module being upgraded. Make sure your module is off-air before beginning the upgrade process.
- As mentioned earlier in [E-MEM Files on page 11](#), recall and record important E-MEM setups before downloading the latest Kameleon software. These files will need to be rebuilt.
- Upgrading from 2.0.2 to 4.1.2 is a two step process that requires downloading two .fld files to the module. The older Kameleon software (version 2.0.2) does not have the capability to update two firmware (Xilinx) components at the same time which is required for this new release. So, the first download updates the software application only and reboots the module. This forces the module to run the new application which enables the necessary ability to download the second .fld file with the required X1 and X2 firmware. Make sure to allow each download to finish completely before attempting to access the module with the web browser.
- If you have previously used an ftp server and the Software Update web page for upgrading software to modular products, you may use this method to do this upgrade.

In this case, you would move the .fld files listed in [Step 2 on page 13](#) into the ftp server directory and follow the same instructions to download the first .fld, allow the module to reboot, then install the second .fld file.

**Note** This method is only recommended if you have the ftp server set up and have used this procedure before. Instructions for this type of download are covered in the *2000NET Instruction Manual* available online.

## Acquiring Software

To acquire the latest Kameleon software, connect to the Thomson Grass Valley ftp site at the following URL:

<ftp://ftp.thomsongrassvalley.com/pub/modular/Kameleon/>

1. Create a temporary folder on your C:\ drive if one does not exist.
2. Select the link to either KAM-AV or KAM-SD. If a README file is present, open it and read the information before attempting to download the files.

Download the following files to the C:\temp directory or other convenient location on your PC by right-clicking on the file link and selecting **Save Target As...** :

- KAM-AV-SD.sw2 (required for NetConfig download)

**Note** Do not save this file as a text document. Select **All Files** under the **Save As Type** pulldown. NetConfig will not recognize this file if it has a .txt extension.

- KAM-AV-SD\_4.1.2\_appli\_only.fld (first .fld download file with application only). (This file is only needed for upgrading from version 2.0.2.)
- KAM-AV-SD\_4.1.2.fld (second .fld download file with application plus complete Xilinx firmware package).

## Updating Software With NetConfig

### Updating from v2.0.2 to v4.1.2

For updating Kameleon software version 2.0.2, use the complete download procedure given next. This involves downloading two .fld files.

### Updating from v4.1.0 to v4.1.2

If you are currently running software version 4.1.0 on your KAM-AV or KAM-SD module, you will only need to do the second download of the KAM-AV-SD\_4.1.2.fld only, starting with [Step 20](#) on [page 19](#).

### NetConfig Upgrade Procedure

Use the following procedure to upgrade using NetConfig:

1. Copy all Kameleon software download files from the C:\temp directory into the main NetConfig directory on your PC. This is normally in the default location in C:\Program Files\Grass Valley Group\NetConfig.

If you have installed NetConfig in another location, find the location of the NetConfig directory by right-clicking on the NetConfig shortcut. Select **Properties** and note the location in the **Start In** field. Download the package to the NetConfig directory.

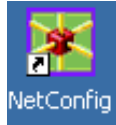
2. In the main NetConfig directory, locate a folder named **modular**. If this folder does not exist, create a folder called **modular** in the main NetConfig directory.
3. Move the two KAM-AV-SD .fld files you copied into the main NetConfig directory (KAM-AV-SD\_4.1.2\_appli\_only.fld and KAM-AV-SD\_4.1.2.fld) into this **modular** folder.
4. Verify that the KAM-AV-SD.sw2 file is somewhere in the main NetConfig directory (not in the **modular** folder). This file should not have a .txt extension or it will not work properly.

**Note** NetConfig reads each .sw2 file in its main directory and navigates to the directory given in these files to find the .fld files available. There may be a number of .sw2 and .fld files in your NetConfig directory for other modular products. These will not interfere with the update.

5. Locate the module to be upgraded in your frame and unplug it. Plug it back in to reset it and begin the upgrade.

**CAUTION** During the download, the module will have no video output, so be sure the module is off-air before upgrading.

6. Navigate to the Slot Config page for the module and uncheck the **Restore Upon Install** checkbox in the Slot Memory section. This prevents old module configurations from being downloaded onto the module from the 2000NET module which can interfere with the new software.



7. Open NetConfig.
8. Navigate to the frame containing the KAM-AV or KAM-SD module you wish to upgrade on the left of the screen.

**Note** If you have not used NetConfig before, refer to the *NetConfig Instruction Manual* included during installation in the main NetConfig directory in pdf format (NetConfig.pdf).

9. Open the module link and select the link to the module's Status page and verify you the following software and firmware versions:

- Firmware Version: X1=48, X2=47
- Software Version: 2.0.2



10. Click on the **Load SW** button on the top of the NetConfig toolbar.

11. This will bring up the Load Software screen ([Figure 2 on page 16](#)).

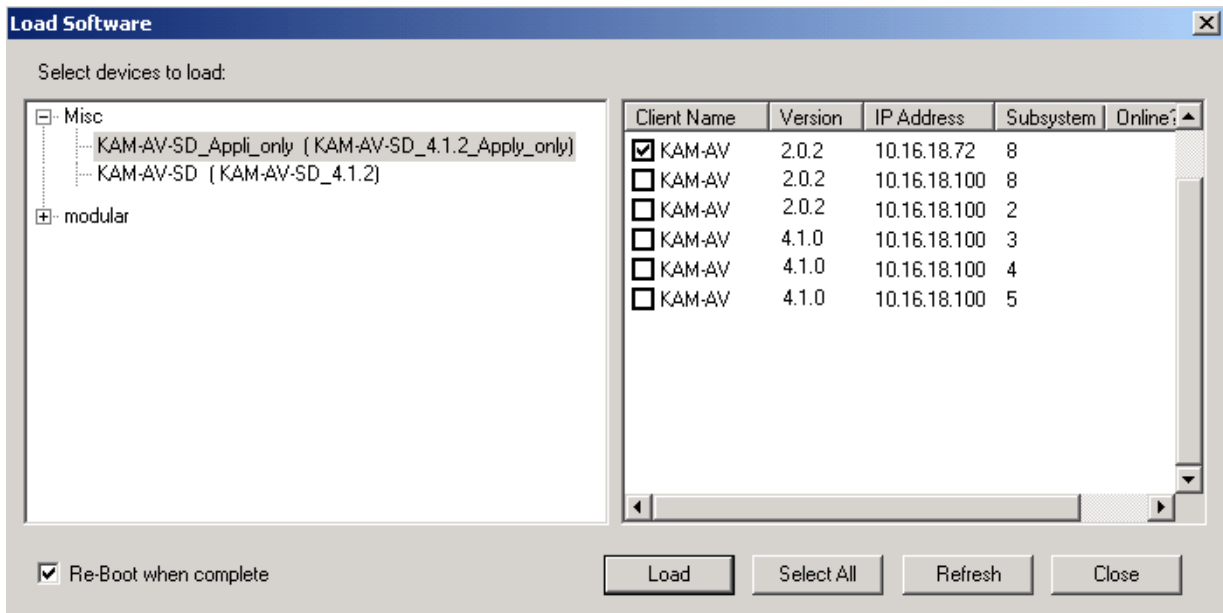
The following files names should appear in the Misc directory:

- KAM-AV-SD\_Appli\_only (KAM-AV-SD\_4.1.2\_Appli\_only)
- KAM-AV-SD (KAM-AV-SD\_4.1.2)

**Note** There will likely be many other device types listed here. Only the files associated with this update are shown here for clarity.

12. For updating to a module with version 2.0.2 software only, highlight the KAM-AV-SD\_appli\_only selection ([Figure 2 on page 16](#)). This will bring up all of the KAM-AV and KAM-SD modules accessible on this network in the window on the right. Their current software version and frame IP Address will be displayed.

Figure 2. NetConfig Load Software Screen – First .fld Download

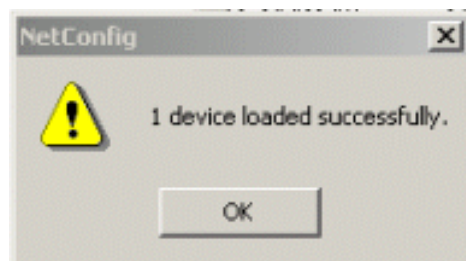


- Find the KAM-AV or KAM-SD module with version 2.0.2 you are updating in the Client Name list. Check the corresponding checkbox in the window on the right to indicate you wish to update this device.

**Note** You may upgrade all modules at once with this application by checking all of the Client Name checkboxes. We recommend upgrading one module first to understand the process before attempting to upgrade all of the modules at once.

- Check the **Re-Boot when complete** checkbox in the lower left corner of the screen.
- Click on the **Load** button to begin the update.
- If the load has been successful, a popup will appear as shown in [Figure 3](#). Click the **OK** button.

Figure 3. Load Successful Popup



- Allow the reboot to complete.



18. Open the Status web page of the module.

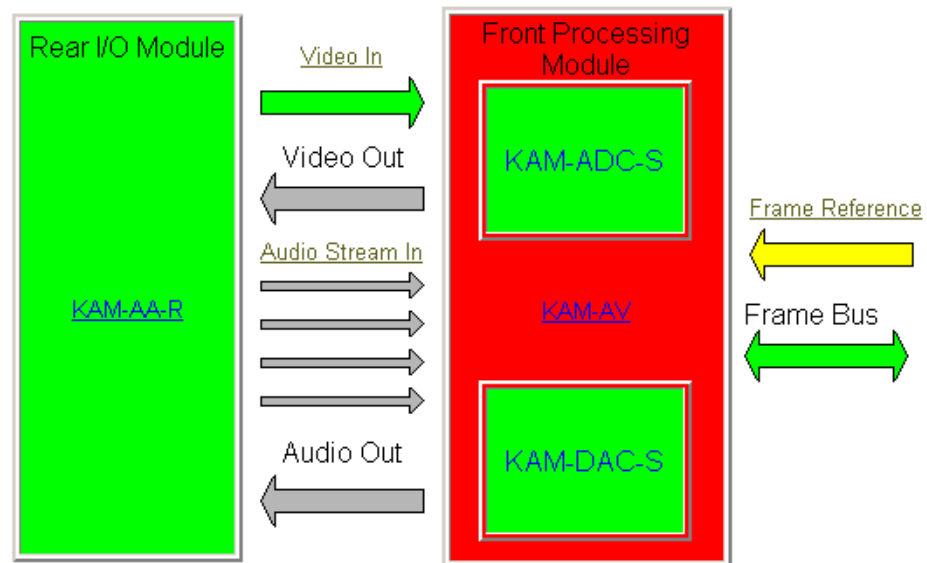
If the KAM-AV is fed with composite video (or no video input), the firmware version should be reported as X1=159.159.159, X2=47 and Software Version: 4.1.2 as shown in Figure 4.

Figure 4. KAM-AV with Composite In Status Page – First Download



Model: [KAM-AV](#) Description: [Kameleon Module](#)  
 Frame Location: [Factory](#) , Slot: [3](#)  
 Last Recalled E-MEM: [Factory Defaults](#)

### Kameleon Module Physical Structure



**FAULT : Missing Xilinx 1 3D Image**

**WARNING : Missing Xilinx 2 KAM-EXTEND Image**

**WARNING - Internal frame reference is not present**

#### Status:

Front Module: **FAULT**  
 Rear Module: [PASS](#)  
 Sub Module 1: [PASS](#)  
 Sub Module 2: [PASS](#)

#### Front Module:

Part Number: [671-6428](#)  
 Serial Number: [VR02375856](#)  
 Hardware Revision: [20U](#)  
 Firmware Version: [X1=159.159.159, X2=47](#)  
 Software Version: [4.1.2](#)  
 Asset Tag:

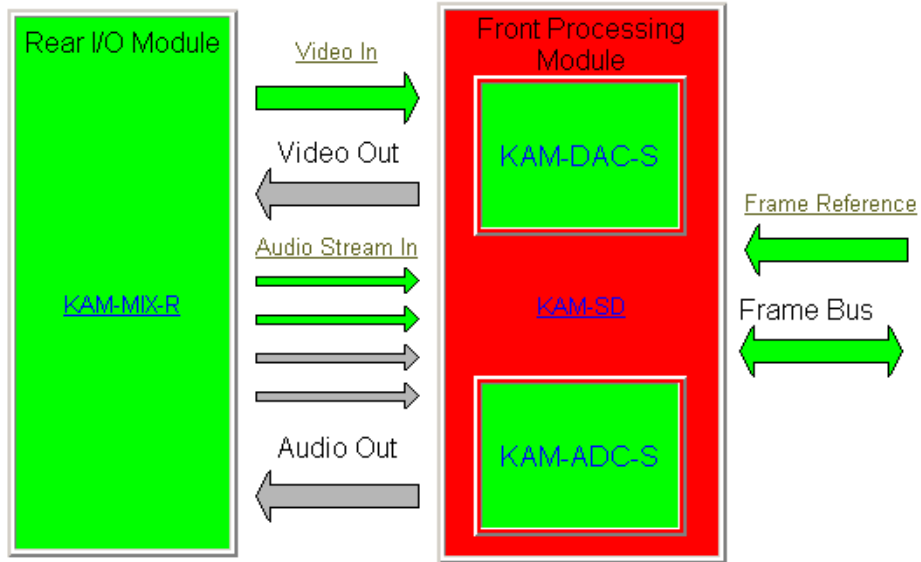
If the KAM-AV is fed with an SDI video input or this is a KAM-SD module (-00R), the firmware version should be reported as X1=48, X2=47 and Software Version: 4.1.2 as shown in Figure 5.

Figure 5. KAM-AV with SDI Video In or KAM-SD Status Page



Model: [KAM-SD](#) Description: [Kameleon Module](#)  
Frame Location: [Factory](#) , Slot: [3](#)  
Last Recalled E-MEM: [Factory Defaults](#)

**Kameleon Module Physical Structure**



**WARNING : Missing Xilinx 2 KAM-EXTEND Image**  
**FAULT : Firmware Version Out Of Date**

**Status:**

Front Module: **FAULT**  
Rear Module: [PASS](#)  
Sub Module 1: [PASS](#)  
Sub Module 2: [PASS](#)

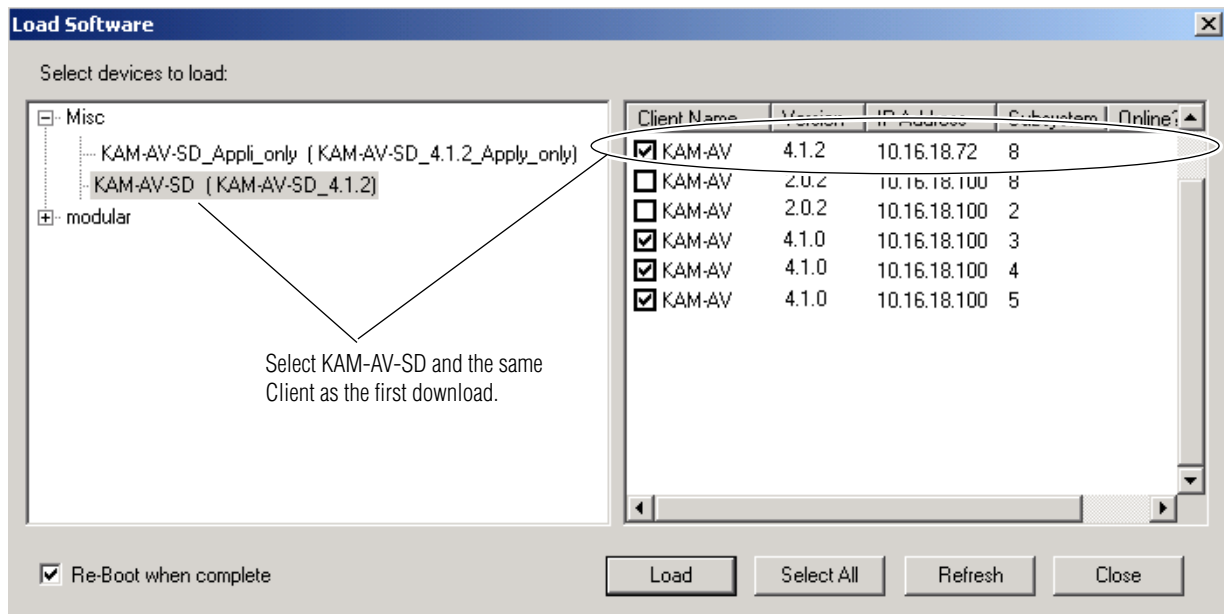
**Front Module:**

Part Number: [671-6428](#)  
Serial Number: [VR02181041](#)  
Hardware Revision: [00S](#)  
Firmware Version: [X1=48, X2=47](#)  
Software Version: [4.1.2](#)  
Asset Tag:



19. Bring up NetConfig again and click on the **Discover** button in the top menu bar. Then click on the **Load Sw** button.
20. Now select the KAM-AV-SD (KAM-AV-SD\_4.1.2) selection on the left (Figure 6).
21. Select the same Client Name as the first download. Note that its Version will now report 4.1.2.  
If you are updating other modules that are currently at version 4.1.0, you may also select their Client Name(s) on the right of the screen to update at this point.
22. Check the **Re-Boot when complete** checkbox in the lower left corner of the screen.
23. Press the **Load** button to download the full package to the KAM-AV module(s) selected.
24. If the load has been successful, a popup will appear as shown in Figure 3 on page 16. Click the **OK** button.
25. Allow the reboot to complete.


Figure 6. NetConfig Load Full Package



26. Open the Status web page of the module again.

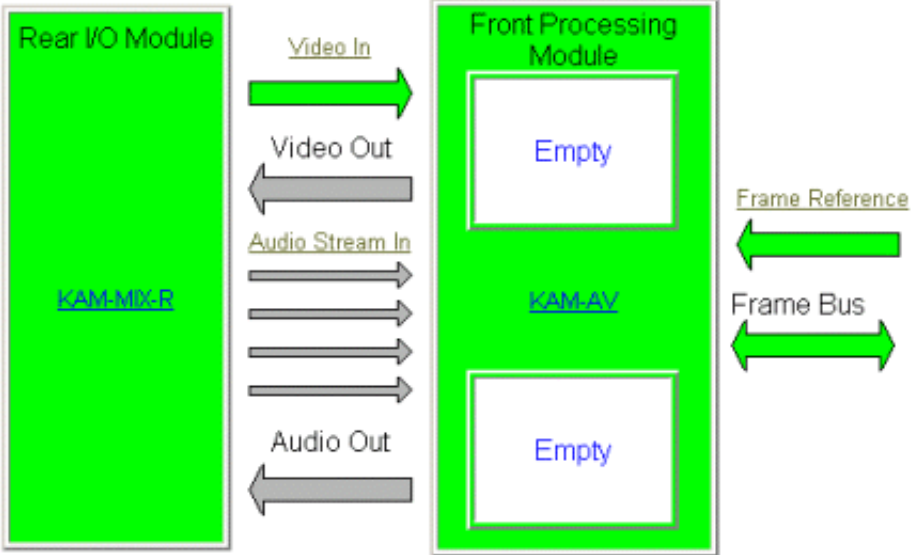
If the KAM-AV is fed with composite video (or no input video), the firmware version should now be reported as X1=2.3.120 (3D version), X2=2.3.8 and Software Version: 4.1.2 as shown in Figure 7.

Figure 7. KAM-AV with Composite In Full Package

**Status** 

Model: [KAM-AV](#) Description: [Kameleon Module](#)  
Frame Location: [Factory](#) , Slot [3](#)  
Last Recalled E-MEM: [Factory Defaults](#)

**Kameleon Module Physical Structure**



The diagram illustrates the physical structure of the Kameleon Module, divided into two main sections: the Rear I/O Module and the Front Processing Module. The Rear I/O Module (KAM-MIX-R) is on the left, and the Front Processing Module (KAM-AV) is on the right. The Front Processing Module contains two sub-modules, both labeled 'Empty'. The diagram shows the following connections and data flows:

- Video In:** A green arrow pointing from the Rear I/O Module to the Front Processing Module.
- Video Out:** A grey arrow pointing from the Front Processing Module to the Rear I/O Module.
- Audio Stream In:** A grey arrow pointing from the Rear I/O Module to the Front Processing Module.
- Audio Out:** A grey arrow pointing from the Front Processing Module to the Rear I/O Module.
- Frame Reference:** A green arrow pointing from the Front Processing Module to the Rear I/O Module.
- Frame Bus:** A green double-headed arrow connecting the Front Processing Module and the Rear I/O Module.

---

**Status:**  
Front Module: [PASS](#)  
Rear Module: [PASS](#)  
Sub Module 1: [EMPTY](#)  
Sub Module 2: [EMPTY](#)

**Front Module:**  
Part Number: [671-6428](#)  
Serial Number: [TT03477543](#)  
Hardware Revision: [20S](#)  
Firmware Version: [X1=2.3.120, X2=2.3.8](#)  
Software Version: [4.1.2](#)  
Asset Tag:

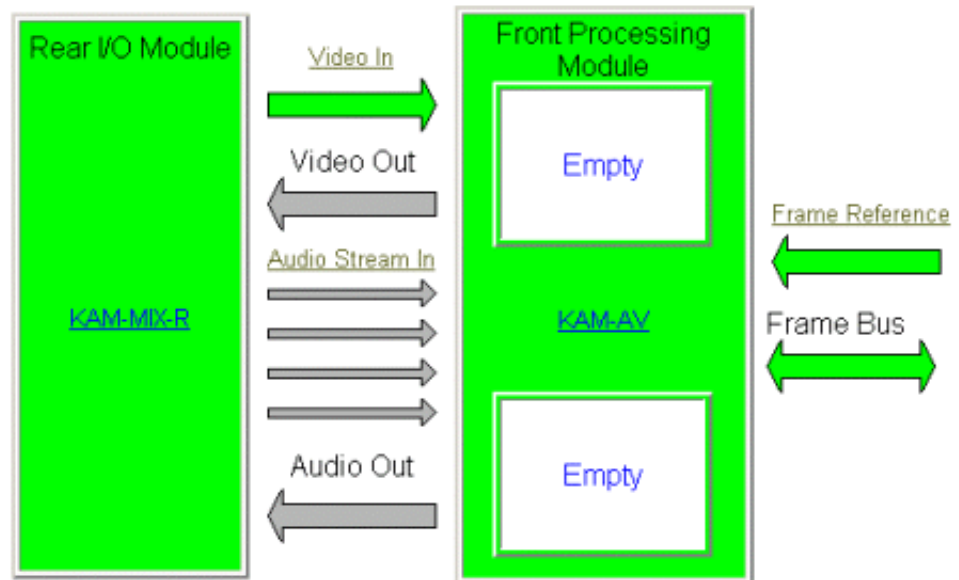
If the KAM-AV is fed with an SDI video input or this is a KAM-SD module (-00R), the firmware version should be reported as X1=2.2.62 (SD version), X2=2.3.8 and Software Version: 4.1.2 as shown in Figure 8.

Figure 8. KAM-AV with SDI Video In Status Page



Model: [KAM-AV](#) Description: [Kameleon Module](#)  
 Frame Location: [Factory](#) , Slot: [3](#)  
 Last Recalled E-MEM: [Factory Defaults](#)

**Kameleon Module Physical Structure**



**Status:**  
 Front Module: [PASS](#)  
 Rear Module: [PASS](#)  
 Sub Module 1: [EMPTY](#)  
 Sub Module 2: [EMPTY](#)

**Front Module:**  
 Part Number: [671-6428](#)  
 Serial Number: [TT03477543](#)  
 Hardware Revision: [20S](#)  
 Firmware Version: [X1=2.2.62, X2=2.3.8](#)  
 Software Version: [4.1.2](#)  
 Asset Tag:

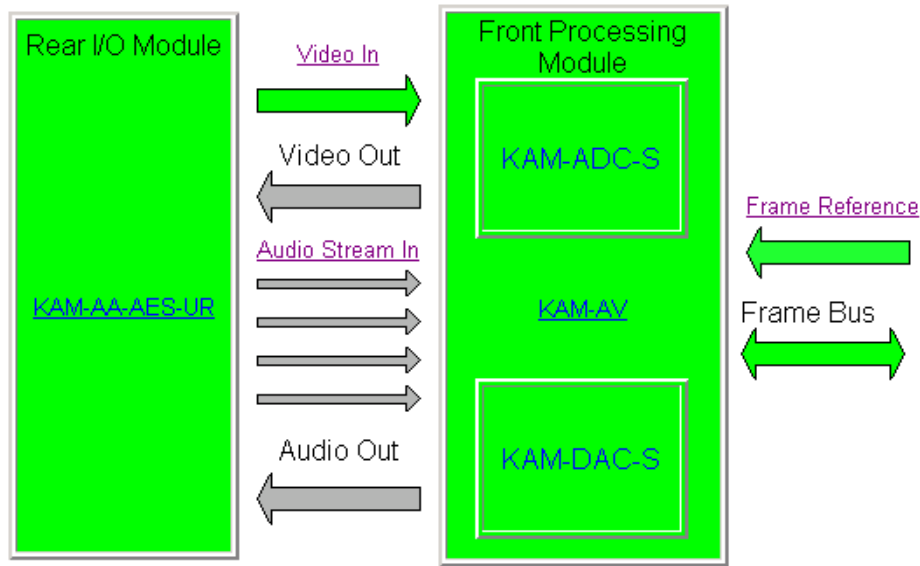
If the KAM-AV or SD has an extended rear module (with dual analog audio inputs) such as the KAM-AA-AES-UR, the X1 firmware will either be 2.2.62 (SD version) or 2.3.120 (3D composite version). The X2 firmware version should be reported as 3.0.2 with the Software Version at 4.1.2 as shown in Figure 9.

Figure 9. KAM-AV with KAM-AA-AES-UR Rear Module Status Page



Model: [KAM-AV](#) Description: [Kameleon Module](#)  
 Frame Location: [not assigned](#) , Slot: 10  
 Last Recalled E-MEM: [Factory Defaults](#)

**Kameleon Module Physical Structure**



**Status:**

Front Module: [PASS](#)  
 Rear Module: [PASS](#)  
 Sub Module 1: [PASS](#)  
 Sub Module 2: [PASS](#)

**Front Module:**

Part Number: [671-6428](#)  
 Serial Number: [12345678](#)  
 Hardware Revision: [20S](#)  
 Firmware Version: [X1=2.3.120, X2=3.0.2](#)  
 Software Version: [4.1.2](#)  
 Asset Tag:

**Sub Module 1:**

Part Number: [671-6419](#) Serial Number: [12345678](#) Hardware Revision: [01A](#)

**Sub Module 2:**

Part Number: [671-6420](#) Serial Number: [vr02429162](#) Hardware Revision: [00C](#)

This completes the upgrade. If you have upgraded from version 2.0.2 to version 4.1.2, refer to the *Kameleon v4.1.0 Release Notes* in PDF format for an overview on new functionality for this software release and the *Kameleon Instruction Manual v4.1.2* for an updated instruction manual. Refer to [Accessing Reference Documents](#). below for information on finding these documents on the Thomson Grass Valley web site.

Go to the E-MEM web page and select the **Recall** button to restore factory settings. Verify proper operation of the module.

## Accessing Reference Documents

For on-line access to reference documents referred to in these Release Notes, navigate to the following URL:

<http://www.thomsongrassvalley.com/docs/>

Select **Broadcast Products**, then the **Modular Products** selection in the table. Scroll to the **Kameleon SD Modules** section to find the KAM-AV and KAM-SD Instruction Manual for version 4.1.0. For the 2000NET module, scroll to the **Control and Monitoring** section to find the 2000NET Network Interface Module.

All of the documents referred to may also be ordered in hard copy from any Grass Valley Sales or Customer Service source. Refer to *Contacting Grass Valley on page 2* at the front of this document.

