

KAM-HD-MULTI

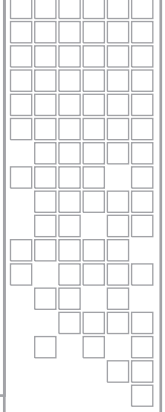
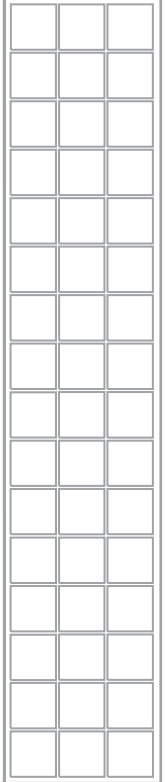
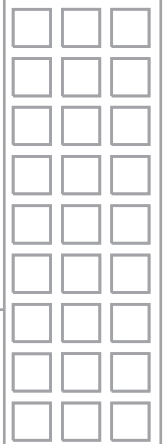
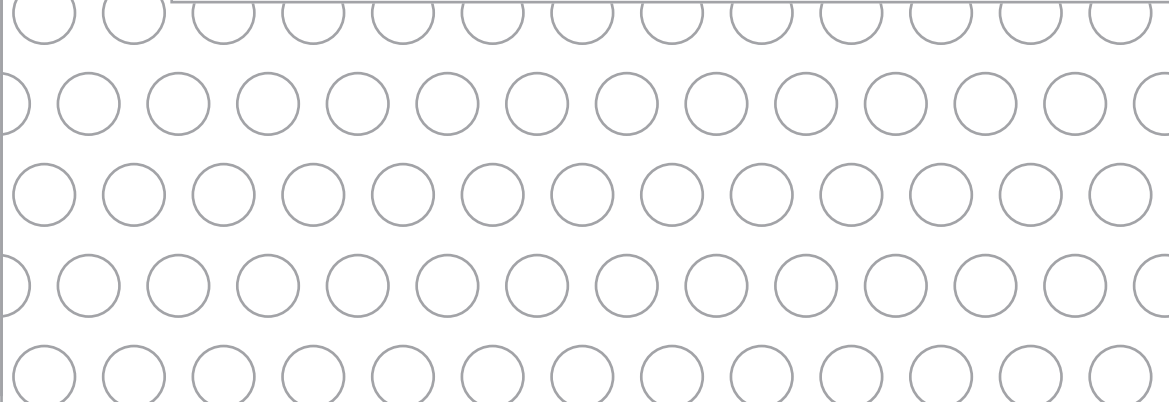
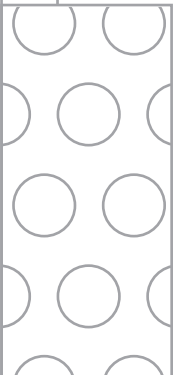
KAMELEON HD/SD MODULE SERIES

Release Notes



SOFTWARE VERSION 3.2.0

071844101
FEBRUARY 2009



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Grass Valley Web Site

The 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 — Download software updates, drivers, and patches.



END-OF-LIFE PRODUCT RECYCLING NOTICE

Grass Valley's innovation and excellence in product design also extends to the programs we've established to manage the recycling of our products. Grass Valley has developed a comprehensive end-of-life product take back program for recycle or disposal of end-of-life products. Our program meets the requirements of the European Union's WEEE Directive, the United States Environmental Protection Agency, and U.S. state and local agencies.

Grass Valley's end-of-life product take back program assures proper disposal by use of Best Available Technology. This program accepts any Grass Valley branded equipment. Upon request, a Certificate of Recycling or a Certificate of Destruction, depending on the ultimate disposition of the product, can be sent to the requester.

Grass Valley will be responsible for all costs associated with recycling and disposal, including freight. However, you are responsible for the removal of the equipment from your facility and packing the equipment to make it ready for pickup.



For further information on the Grass Valley product take back system please contact Grass Valley at + 800 80 80 20 20 or +33 1 48 25 20 20 from most other countries. In the U.S. and Canada please call 800-547-8949 or 530-478-4148, and ask to be connected to the EH&S Department. Additional information concerning the program can be found at: www.thomsongrassvalley.com/environment



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KAM-HD-MULTI Function Module Release Notes

Introduction

This document provides information on the version 3.2.0 software releases for use with the KAM-HD-MULTI Function Module.

Read this document completely before attempting to download the latest software.

This document details:

- Accessing Reference Documents ([page 5](#)).
- System requirements ([page 6](#)),
- Version 3.2.0 Software Release Features ([page 7](#)), and
- Acquiring and Installing software ([page 11](#)).

Accessing Reference Documents

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

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

System Requirements

Operation of the KAM-HD-MULTI Function modules in Kameleon 2000 Series frames has the following hardware and software requirements:

- Modules must be installed in a 2000T1DNG or 2000T3DNG Kameleon 2000 Series frame containing a 2000GEN module.
- The dual height KAM-HD-MULTI-UR Rear (for unbalanced audio inputs) or the KAM-HD-MULTI-BR Rear (for balanced audio inputs) is required for this module. If the wrong rear module is installed, the module will not be operable.
- The frame must have a 2000NET module with assembly number 671-5231-01 or later running software version 4.0.2 or later.
- Installation of this latest release of software requires a Kameleon HD module with assembly number 671-6514-20. Other Kameleon HD module assemblies cannot be updated with this release.

Version 3.2.0 Software Release

This section describes the features and software and operational issues for updating from version 3.0.1 to version 3.2.0 on the KAM-HD-MULTI module:

Frame Sync Web Page

[4 KAM-HD-MULTI-U](#)

[Status](#)

[I/O Config](#)

[System Config](#)

[Functional View \(HD Multi\)](#)

- [HD Video In](#)

- [HD Frame Sync](#)

- [HD Color Correction](#)

- [HD Video Proc](#)

- [HD MUX](#)

- [Audio Input Status](#)

- [Audio Input Select](#)

- [Audio Sync](#)

- [Audio Processing](#)

[Select](#)

- [Audio Gain](#)

- [Audio Channel Pairing](#)

- [Audio Proc](#)

- [AES Outputs](#)

[E-MEM®](#)

[Slot Config](#)

Use
this
link

The following two controls were added to the Frame Sync web page (Figure 1 on page 8):

- **Minimum Delay Mode** – A minimum delay can be enabled to bypass portions of the frame sync memory to allow an absolute minimum amount of delay through the module. To enable this mode, check the **Enabled** checkbox.
- **Delay Wrap Position** – this metering indicator will display with a blue bar, the fraction of the final frame of actual video delay through the frame sync.

For example, with 1080i video and Minimum Delay Mode not selected, if 600 lines is entered by the user, that actual delay through the module will be anywhere from about 1 to 2 frames depending on the following conditions:

- If the module is in Input timing mode, the delay through the module will be about 1.5 frames, and the Delay Wrap Position will be at about 50% of full scale.
- If the module is in Frame Reference timing mode, the delay through the module will be about 1.5 frames if the input video has zero delay with respect to the genlock reference frame position, and the Delay Wrap Position will be at about 50% of full scale. As this input video delay with respect to the genlock reference frame position is changed from -0.5 to +0.5 frame periods, the delay through the module will change from about 1 to 2 frame periods, with the Delay Wrap Position changing from about 0 to 100% of full scale.

In summary, the Electrical Length of the module can be estimated as the following:

- 1 frame minus 5 lines (Minimum Delay Mode not selected), or
- -300 pixels (Minimum Delay Mode selected) + Delay Wrap Position (% of full scale) X (1 frame period).

Figure 1. Revised Frame Sync Web Page

HD Frame Sync

Model: [KAM-HD-MULTI-U](#) Description: [HD/SD Multi-function](#)

Frame Location: [not assigned](#) , Slot: [8](#)

Input Video Standard: [1080i/50](#)

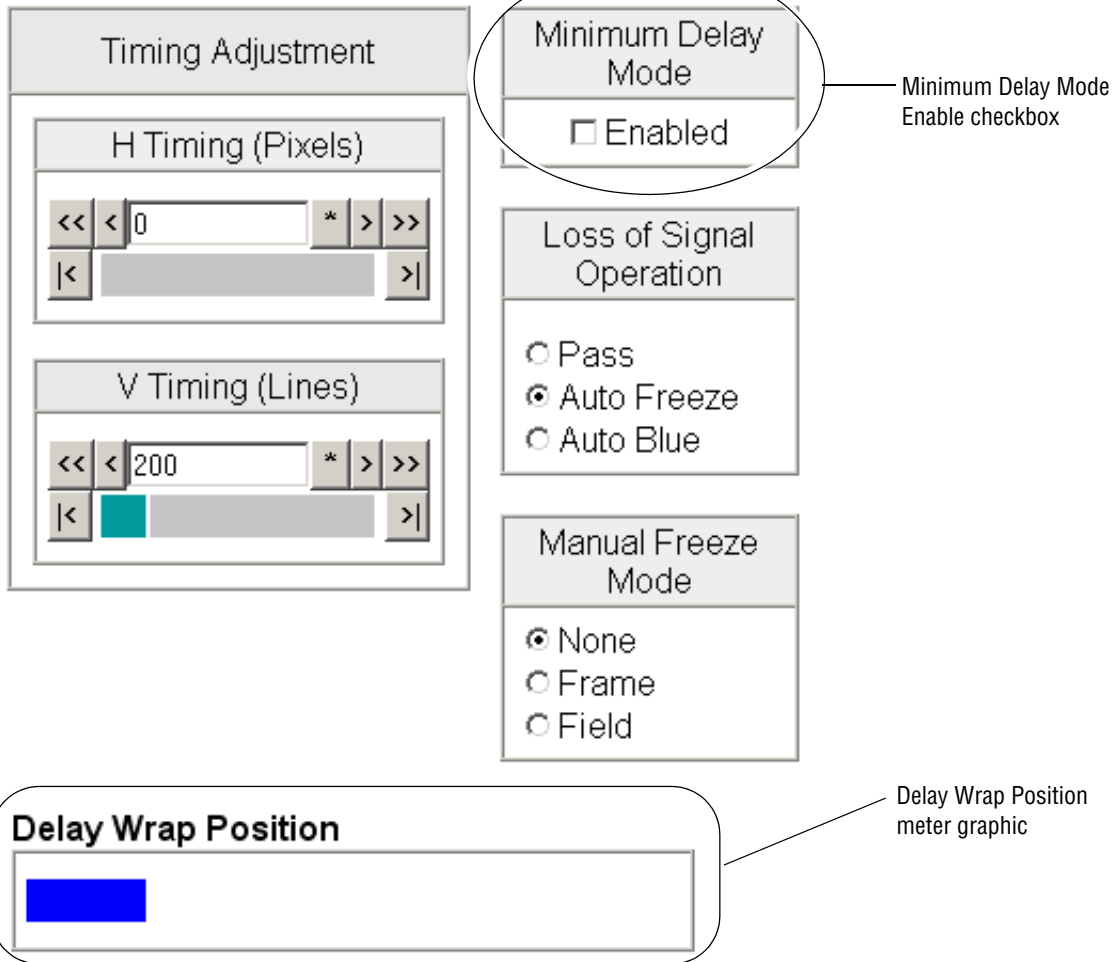
Input Video: [SDI Input : Present](#)

Output Timing Source: [Frame Reference](#)

Split Screen: [Disabled](#)

Last Recalled E-MEM: [Factory Defaults](#)

Down Converter Output Line Rate: [N/A](#)



The screenshot displays the HD Frame Sync configuration interface. On the left, the 'Timing Adjustment' section contains two sub-sections: 'H Timing (Pixels)' with a value of 0 and 'V Timing (Lines)' with a value of 200. On the right, three control panels are visible: 'Minimum Delay Mode' with an unchecked 'Enabled' checkbox, 'Loss of Signal Operation' with 'Auto Freeze' selected, and 'Manual Freeze Mode' with 'None' selected. At the bottom, a 'Delay Wrap Position' meter shows a blue bar representing the current position. Annotations with leader lines point to the 'Enabled' checkbox and the 'Delay Wrap Position' meter.

Timing Adjustment

H Timing (Pixels)

V Timing (Lines)

Minimum Delay Mode

Enabled

Minimum Delay Mode Enable checkbox

Loss of Signal Operation

Pass

Auto Freeze

Auto Blue

Manual Freeze Mode

None

Frame

Field

Delay Wrap Position

Delay Wrap Position meter graphic

Audio Sync Web Page

The Audio Sync web page now has an **Audio Disruption Processing** control (circled in [Figure 2](#)). Enabling this control turns on audio processing to remove possible audio disruption out of the AES stream when video is switched upstream when an AES input is removed from or connected to an audio input port.

Figure 2. Revised Audio Sync Web Page

Audio Sync

Model: [KAM-HD-MULTI-U](#) Description: [HD/SD Multi-function](#)
 Frame Location: [not assigned](#) , Slot: [8](#)
 Input Video Standard: [480i/59.94](#) Input Video: [SDI Input : Present](#)
 Output Timing Mode: [Frame Reference](#) Split Screen: [Disabled](#)
 Last Recalled E-MEM: [Factory Defaults](#) Down Converter Output Line Rate: [N/A](#)

Enable Auto Tracking On
 Audio Disruption Processing On

Audio Disruption Processing Enable checkbox

View Select Streams (1 - 2) Streams (3 - 4) Streams (5 - 6) Streams (7 - 8)

Stream 1		
Ch 1	SDI Input.G1.S1.SRC.Ch1	
Ch 2	SDI Input.G1.S1.SRC.Ch2	
	Ch 1	Ch 2
Auto Tracking Status	Enabled	
Auto Tracking Delay	53 mS	
Total Delay	53 mS	53 mS
<input checked="" type="checkbox"/> Channel Delay Lock Ch 1 Delay Adjust (ms) << < 5000 * > >> < >		
Ch 2 Delay Adjust (ms) << < 5000 * > >> < >		

Stream 2		
Ch 1	SDI Input.G1.S2.SRC.Ch1	
Ch 2	SDI Input.G1.S2.SRC.Ch2	
	Ch 1	Ch 2
Auto Tracking Status	Enabled	
Auto Tracking Delay	53 mS	
Total Delay	53 mS	53 mS
<input checked="" type="checkbox"/> Channel Delay Lock Ch 1 Delay Adjust (ms) << < 0 * > >> < >		
Ch 2 Delay Adjust (ms) << < 0 * > >> < >		

Defaults [<< Previous](#) [Functional View](#) [Next >>](#)

Software and Operational Issues

Please take note of the following software and operational issues in the version 3.2.0 release:

- Installing an incorrect rear module will prevent the KAM-HD-MULTI module from operating and will produce a warning on the Status web page. For rear module requirements, refer to [Accessing Reference Documents on page 5](#). If this condition occurs, replace the rear module with the correct version, pull out the front module and reseal it to reboot the module.
- (47989) The video proc amp on this module will not pass a SuperBlack signal.
- (71350) On the AES Output web page, setting the AES Output Resolution on a 20 bit signal will not add an actual increase in fidelity (dynamic range) to the audio signal. Setting a 24 bit signal to 20 bits, will however, truncate the last four bits.

Acquiring and Updating Software

NetConfig, a networking application option available from Grass Valley, must be used to update this software. Use the latest version of NetConfig, version 2.0.8 or later. You may download this application free of charge.

Note Please note the [Accessing Reference Documents on page 5](#) before downloading software to an existing KAM-HD-MULTI module.

Acquiring NetConfig Software

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

<ftp://ftp.thomsongrassvalley.com/pub/router/NetConfig/Version 2.0.10/>

1. Right-click on the latest NetConfig 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.

Acquiring 2000NET Software

The latest software for the 2000NET module is available from the Thomson Grass Valley ftp site at the following URL:

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

To download the latest 2000NET software, do the following:

4. Select the 2000 Series link.
5. Select the link to the latest 2000NET Interface module software.
6. If you are updating from an earlier version than 3.2.0, use the .bin file and the FTP Server procedure described in detail in the *2000NET Instruction Manual* available on-line.
7. Use the NetConfig Networking Application option to update from version 3.2.2 to version 4.0.2 or later with the .fld file.

Updating Software With NetConfig

To update with NetConfig you must have the following:

- PC with NetConfig Networking application installed (version 2.0.10 is the latest version as of this printing),
- IP connection between the frame containing the Kameleon modules and your PC, and
- 2000NET module in the Kameleon frame with software 4.0.2 or later.

NetConfig Upgrade Procedure

Begin the upgrade procedure by moving the KAM-HD-MULTI files you have downloaded from the ftp site into the correct NetConfig directories.

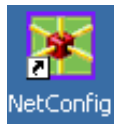
1. Copy the two KAM-HD-MULTI software download files (KAM-HD-MULTI_V3.2.0.sw2 and KAM_HD_MULTI_V3.2.0.fld) into the main NetConfig directory on your PC. This is normally in the default location in C:\Program Files\Grass Valley Group\NetConfig.

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 KAM-HD-MULTI_V3.2.0.fld file you copied into the main NetConfig directory into this **modular** directory.
4. Verify that the KAM-HD-MULTI_V3.2.0.sw2 file is in the main NetConfig directory (not in the **modular** directory).

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. Open NetConfig by double clicking on the NetConfig icon.

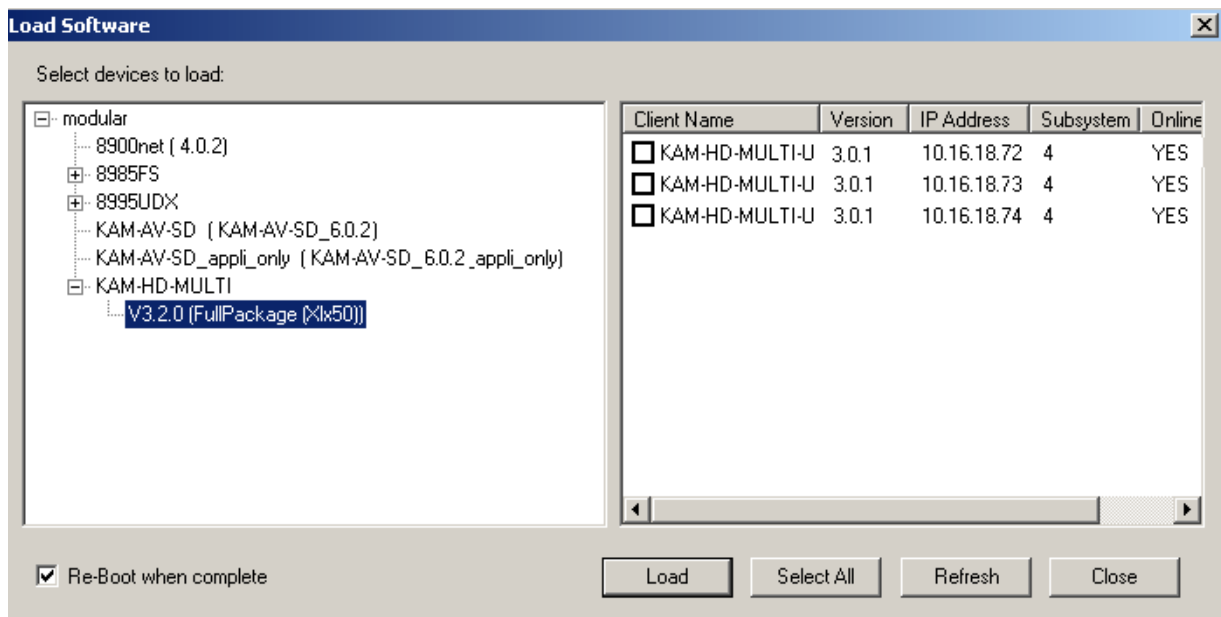


Note If you have not used NetConfig before, refer to the *NetConfig Instruction Manual* included during installation in the main NetConfig directory in pdf format (NetConfig.pdf).



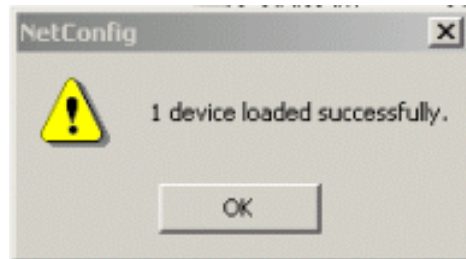
6. Click on the **Load SW** button on the top of the NetConfig toolbar.
7. This will bring up the Load Software screen (Figure 3). This screen shows NetConfig version 2.0.10, the latest version.
8. Open the KAM-HD-MULTI directory by selecting the +.
9. Highlight the V3.2.0 (FullPackage (X1x50)) selection in the list. All KAM-HD-MULTI modules accessible on this subnet will be displayed in the window on the right with their current software version and frame IP Address.
10. Find the KAM-HD-MULTI module 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.
11. Check the **Re-Boot when complete** checkbox in the lower left corner of the screen.
12. Click on the **Load** button to begin the update.

Figure 3. NetConfig Load Software Screen



13. If the load has been successful, a popup will appear as shown in [Figure 4](#). Click the **OK** button.

Figure 4. Load Successful Popup



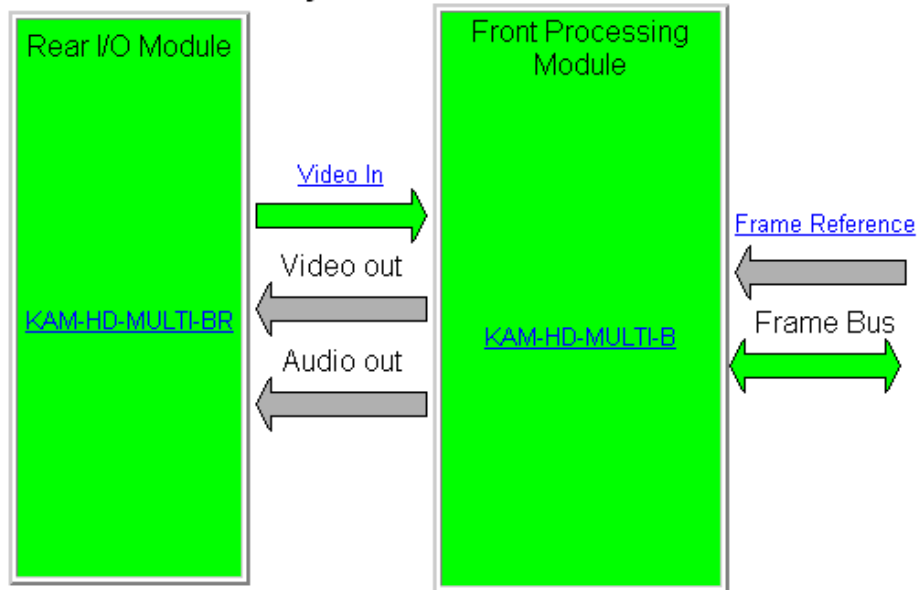
14. Allow the reboot to complete.
15. Complete the same steps for the rest of the KAM-HD-MULTI modules listed, allowing the reboot to complete each time.
16. Check that the module has updated to version 3.2.0 on the Status web page of each module ([Figure 5 on page 15](#)).
17. After each update, recall factory default settings on each module by selecting the **RECALL** factory default settings button on the E-MEM web page.

Figure 5. Status Web Page



Model: [KAM-HD-MULTI-B](#) Description: [HD/SD Multi-function](#)
 Frame Location: [Factory](#) , Slot: [4](#)
 Input Video Standard: [1080i/59.94](#) Input Video: [SDI Input : Present](#)
 Output Timing Source: [Frame Reference](#) Split Screen: [Disabled](#)
 Last Recalled E-MEM: [Factory Defaults](#) Down Converter Output Line Rate: [N/A](#)

Kameleon Module Physical Structure



Status:

Front Module: [PASS](#)
 Rear Module: [PASS](#)

Front Module:

Part Number: [671-6514-20](#)
 Serial Number:
 Hardware Revision: [20](#)
 Firmware Image 1 Version: [Inactive](#)
 Firmware Image 2 Version: [3.4.1](#)
 Firmware Image 3 Version: [Inactive](#)
 Firmware Image 4 Version: [Inactive](#)
 Software Version: [3.2.0](#)
 Asset Tag:

