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8925DMB-B and -U
HD/SD DIGITAL AUDIO DE-EMBEDDER

Instruction Manual

Software Version 2.1.3

www.grassvalley.com

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HD/SD DIGITAL AUDIO DE-EMBEDDER

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International Support Centers	France 24 x 7	+800 8080 2020 or +33 1 48 25 20 20	United States/Canada 24 x 7	+1 800 547 8949 or +1 530 478 4148
Local Support Centers (available during normal business hours)	Asia	Hong Kong, Taiwan, Korea, Macau: +852 2531 3058 **Indian Subcontinent:** +91 22 24933476 **Southeast Asia/Malaysia:** +603 7805 3884 **Southeast Asia/Singapore:** +65 6379 1313 **China:** +861 0660 159 450 **Japan:** +81 3 5484 6868		
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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.

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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.

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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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Preface

About This Manual

This manual describes the features of a specific 8900 module in the GeckoFlex Signal Processing System families. As part of this module family, it is subject to Safety and Regulatory Compliance described in the GeckoFlex 8900 Series frame documentation (see the *GeckoFlex Frames 8900FX/FF/FFN Signal Processing System Instruction Manual).*

All Modular product manuals can be found on-line in PDF format at this link:

www.grassvalley.com/docs/modular

8925DMB-B and -U HD/SD Digital Audio De-Embedder

Introduction

The 8925DMB module is available in two versions: the 8925DMB-B with balanced audio outputs using the 8900BVF-R rear module and the 8925DMB-U with unbalanced audio outputs 8900UVF-R rear module. The 8925DMB-B and 8925DMB-U modules perform the action to de-embed (demultiplex) up to four AES audio streams out of a HD/SD SDI signal.

The two models 8925DMB-B and 8925DMB-U must be installed in a GeckoFlex frame (8900FFN). Configuration of the 8925 module requires the presence of an 8900NET module with software version 4.3.0 or later installed in the GeckoFlex frame as there are no local on-board controls for configuration.

Module Features

The 8925DMB-B and 8925DMB-U module features include:

- One multi-format HD/SD video input and three HD/SD video outputs (BNC or optional fiber optic interface),

- One reclocked loop through video output,

- Up to four audio outputs balanced (with 8900BVF-R rear module) or unbalanced (with 8900UVF-F rear module),

- A fiber optic submodule option can be installed to provide optical video input/output interfaces for both models depending on the sub-module type Refer to Table 1 on page 15 for the options available.

- Remote control and monitoring support including web pages, Newton control panel, NetConfig management system, and NetCentral (SNMP) alarms reporting.

Installation

The front and the rear modules are delivered together as a set. Two choices are available: one for balanced audio outputs with the 8900BVF-R rear module and one for unbalanced audio outputs with the 8900UVF-R rear module.

The 8925DMB front module can be plugged in and removed from a GeckoFlex frame with power on, without disrupting operation on adjacent running modules. When power is applied to the module, LED indicators reflect the initialization process (see *Power Up* on page 19).

Module Placement in the GeckoFlex Frame

There are ten rear and front slot locations in the 2 RU frame to accommodate either audio or video modules (Figure 1). The 8925DMB module set may be plugged into any one of the available GeckoFlex frame slots. The 8925DMB requires a single rear slot.

Note   Use anti-static precautions when handling the module. As the module can be changed when the GeckoFlex is powered on, before removing the cover, please put an anti-static bracelet tied to a metal part of the frame.

Figure 1. GeckoFlex Frame
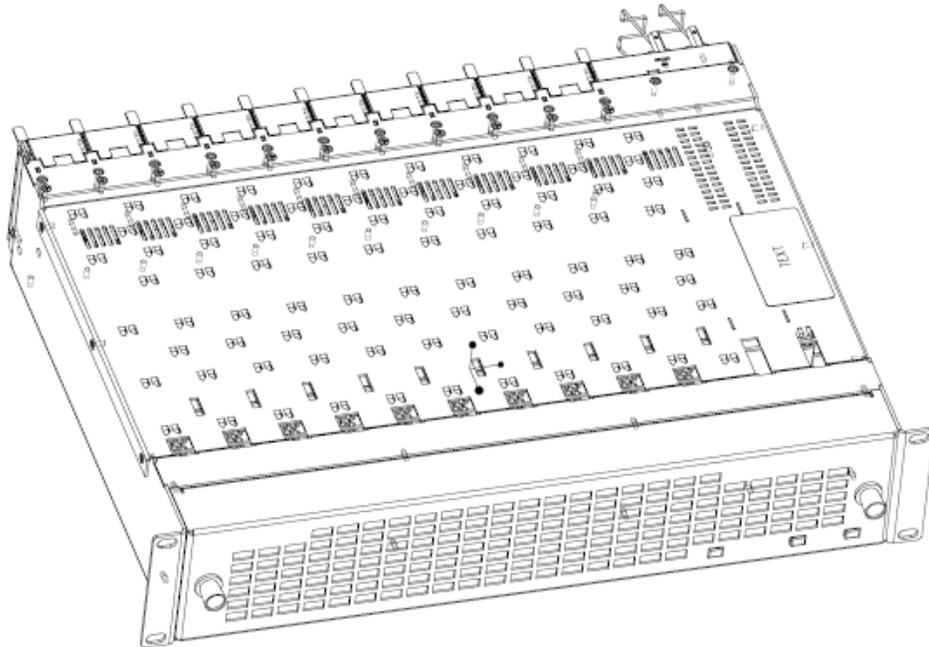
Module Installation Precautions

Please read and follow the precautions listed below before installing the front and rear modules and any fiber optic option submodule (8925DMB models only):

- Use standard anti-static procedures during installation. As modules can be installed or removed when the GeckoFlex frame is powered up, before removing the cover, please use an anti-static bracelet tied to a metal part of the frame.

- Install the rear module first, then the front module, then the optical sub-module option if used on the 8925DMB.

- When installing or removing a rear module, loosen or tighten the screws holding the retainer clips to the frame manually with the retainer clip tool provided inside the front cover of the frame or use a 2 mm (5/64") hex screwdriver. Please do not use an electric screw-driver.

Note   On newer 751- version GeckoFlex frames, a Rear Retainer Clip removal tool and 2 extra retainer clips and screws for installing them are provided on the inside of the frame cover.

- Make every effort to leave the screws holding the retainer clips in place (do not remove them completely). They are very small and can easily drop into other equipment causing a shorting hazard. (Two turns of the screw should be enough to loosen the screws, 3 turns or more will remove it.)

- When installing a rear module, tighten the screws on the retainer clips just until snug. Do not apply more force than is necessary to seat the rear module. Refer to the **Mechanical** specifications given in Table 5 on page 48.

- If using a fiber optic submodule on the 8925DMB fiber ready module, handle it carefully, use anti-static precautions, and read the *Fiber Optic Cleaning Requirement* on page 15 before cabling.

Rear Module Installation

1. To remove a blank rear adapter cover (or a rear module already present), manually loosen the two screws holding each retainer clip on the rear adapter cover or rear module to the frame with the retainer clip tool provided inside the front cover of the frame (751- model frames only) or a 2 mm (5/64") hex screwdriver.

Note To remove a rear module already installed, follow the same steps. It is helpful to first remove the front module so the rear can be pulled out more easily.

1. After loosening the retainer clip screws, pull up on each retainer and completely remove it, leaving the screws in place.

2. Remove the blank rear adapter cover by inserting the retainer clip tool or needlenose pliers into the slots in the blank cover and pulling it off (Figure 2).

3. Insert the rear module into the empty slot, guiding it carefully into place.

4. Replace each retainer clip over the two screws on both sides of the module and push down to seat the retainer clip.

5. Tighten the two screws on each retainer clip just until they come into contract with the retainer clip then tighten about a 1/4 turn more (maximum torque is 4-5 inch-lb/0.45-0.6Nm). Do not force or torque the screws too tightly. The clips should not bend or be bowed.

Note All unused rear slots in a GeckoFlex frame should have a blank rear adapter cover installed.

Figure 2. Installing Rear Module

Use retainer clip or
needlenose pliers
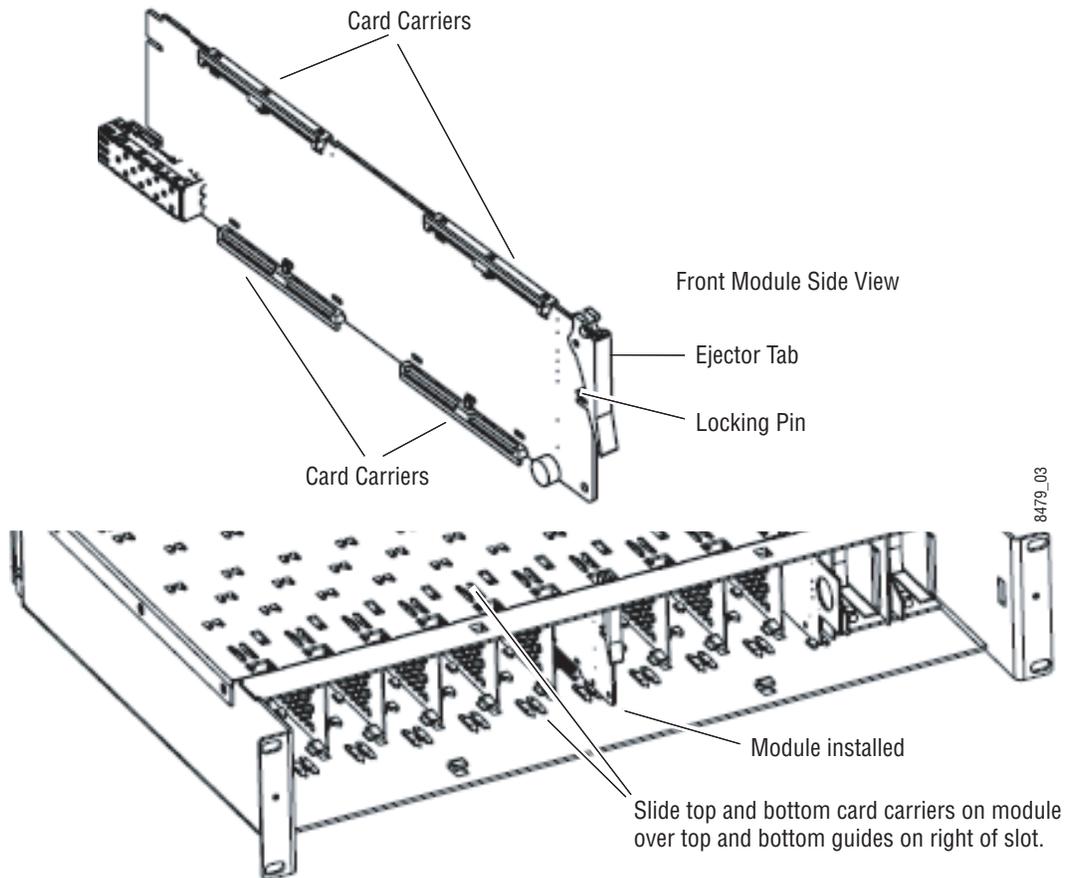to pull out blank after
removing retainer clips

8444_23r0
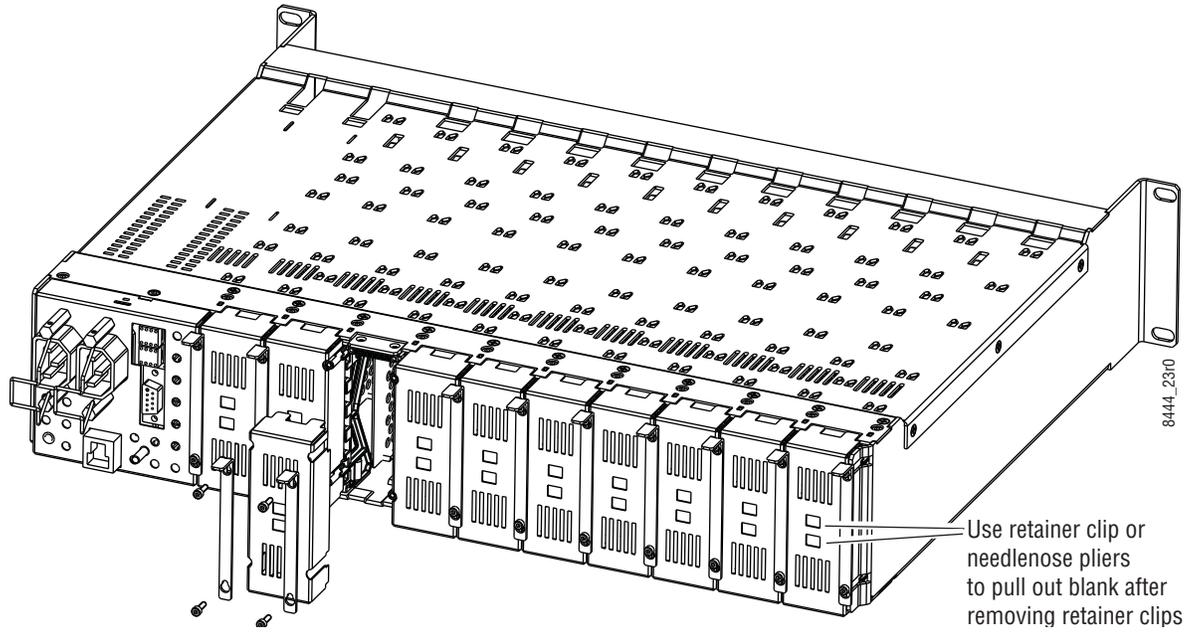
Installing Front Module

After installing the rear module and configuring the front module using local controls if required, install the front module as follows:

1. Remove the front cover of the frame.

2. Locate the front slot corresponding to the rear module you have already installed.

3. Insert the front module so that the plastic card guides on the module top and bottom edges go over the upper and lower raised rail guides on the right of the top and bottom of the slot (Figure 3).

4. Carefully slide the module into the rear connector, making sure the fiber optic connector on the 8925DMB module fits into the rear module properly.

5. Lock the front module ejector tab into the locking pin.

6. Replace the frame front cover during operation to maintain optimum cooling conditions.

Figure 3. Front Module Installation

Card Carriers

Front Module Side View

Ejector Tab

Locking Pin

Card Carriers

8479_03

Module installed

Slide top and bottom card carriers on module over top and bottom guides on right of slot.

Optional Fiber Optic Submodule Installation

After the front and rear modules have been installed, install the SFP Fiber Optic submodule option if being used into the rear module metal cage labeled FIBER (Figure 4 on page 16). The SFP submodule is hot-pluggable and may be installed or removed with power applied to the module.

CAUTION   Use anti-static precautions and handle the submodule carefully when installing and the removing it. Before inserting the fiber cable, it is important to clean all fiber connections as described in *Fiber Optic Cleaning Requirement*.

Refer to Table 1 for the correct model of submodule to use with different software versions.

Table 1. Fiber Optic Submodule Summary

| Submodule	Type	SW 2.1.3 and later	SW 2.1.3 and earlier
SFP-13103G-M1DRX	Dual Receiver	X	–
SFP-13103G-M1DTX	Dual Transmitter	X	–
SFP-13103G-M1TRX	Transceiver	X	–
1310nm-DRL	Dual Receiver	X	X
1310nm-DTL	Dual Transmitter	X	X
1310nm-TRL	Transceiver	X	X

Fiber Optic Cleaning Requirement

Before making any fiber optic cable mating connections, including installation, and after every de-mating cycle, use an industry standard fiber optic cleaning kit, including oil-free compressed air, to clean the fiber connectors and the connectorized fiber end faces. This helps ensure optimum performance of the fiber optic interface. Industry standard fiber optic cleaning kits can be purchased on the web and in electronics stores.

To install the fiber optic submodule:

1. Slide the fiber optic submodule into the cage connector connected to the front module at the rear of the frame (label on right).

2. When installed properly, the front end of the submodule will line up with the rear module BNCs. Do not try to force it in further.

3. Cable the fiber optic connectors according to the instructions given in *Cabling* on page 17 depending on the type of submodule used.

Figure 4. Fiber Optic Submodule
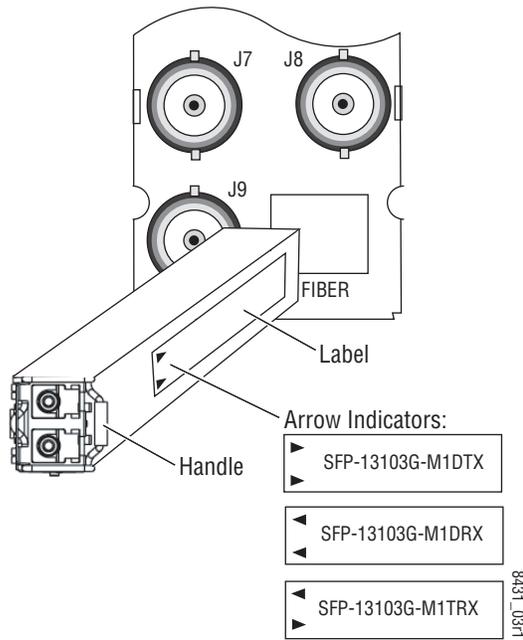
To extract the fiber optic submodule follow the steps below:

1. Remove the fiber cable first.

2. Unlock the module by flipping the handle to the left.

3. Remove the fiber optic submodule by using its handle.

Cabling

Cabling to the 8925DMB-B or 8925DMB-U module is done on the 8900BVF-R rear module (balanced audio inputs) or the 8900UVF-R rear module (unbalanced audio inputs).

The I/O Config web page shows the inputs and the outputs assigned to the different connectors of the rear modules. Cabling of the rear module depends on what fiber optic submodule option is installed as below:

- 8925DMB-B and 8925DMB-U without fiber optic submodule option (electrical only),

- 8925DMB-B and 8925DMB-U with SFP-13103G-M1DRX (Dual Receiver Fiber Optic)

- 8925DMB-B and 8925DMB-U with SFP-13103G-M1DTX (Dual Transmitter Fiber Optic), and

- 8925DMB-B and 8925DMB-U with SFP-13103G-M1TRX (Transceiver Fiber Optic).

The 8925DMB-B and the 8925DMB-U will accept any of the video standards listed in the input specifications in Table 5 on page 48.

Table 2 below gives the inputs and the possible video output connections for the 8925DMB rear modules. The cabling is illustrated in Figure 5 on page 18 for the 8900VBF-R rear module and Figure 6 on page 18 for the 8900UVF-R rear module.

Table 2. 8925DMB Rear Cabling

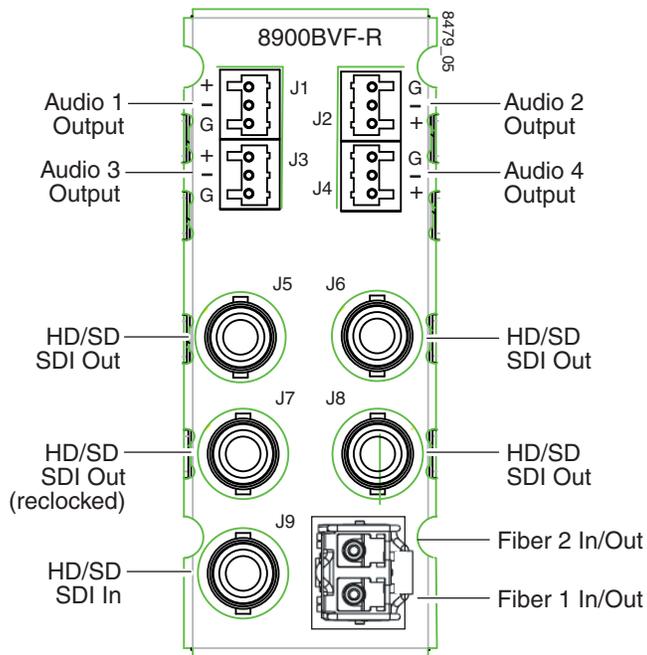| Option	Video Inputs Coax	Audio Outputs	Video Outputs	Reclocked Video Output	Optical Inputs	Optical Outputs
Without optical option	J9	J1, J2, J3, J4	J5, J6, J8	J7		
With Dual Receiver	J9	J1, J2, J3, J4	J5, J6, J8	J7	Fiber 1 or Fiber 2	
With Dual Transmitter	J9	J1, J2, J3, J4	J5, J6, J8	J7		Fiber 1 and Fiber 2
With Transceiver	J9	J1, J2, J3, J4	J5, J6, J8	J7	Fiber 1	Fiber 2

Figure 5. 8900BVF-R Rear Module

Figure 6. 8900UVF-R Rear Module
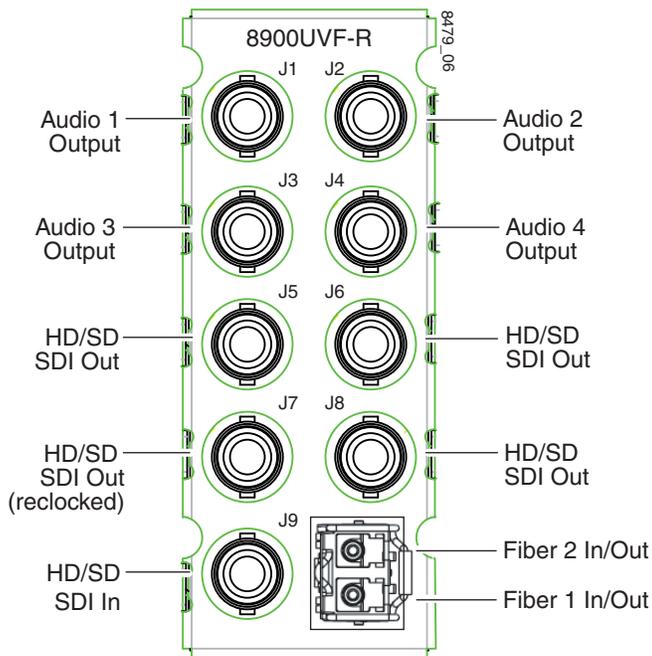
Power Up

The on-board LED indicators are illustrated in Figure 7. Upon power-up, the green PWR LED should light on. The CONFIG and FAULT LEDs should briefly light on and the COMM LED should blink during the module initialization.

Note   When a module is first plugged into a GeckoFlex frame, the 8900NET module (if present) may report a momentary fault. This will clear once the module has booted up.

Operation Indicator LEDs

With a valid input signal present, the VID IN PRES (green) LED should be on. Refer to Table 3 on page 20 to see a complete list of possible operating conditions and the resulting indicator status.

Note   LED colors are highlighted in Figure 7 for reference only. They are not intended to show the state of the module at power up.

Figure 7. LEDs Indicators
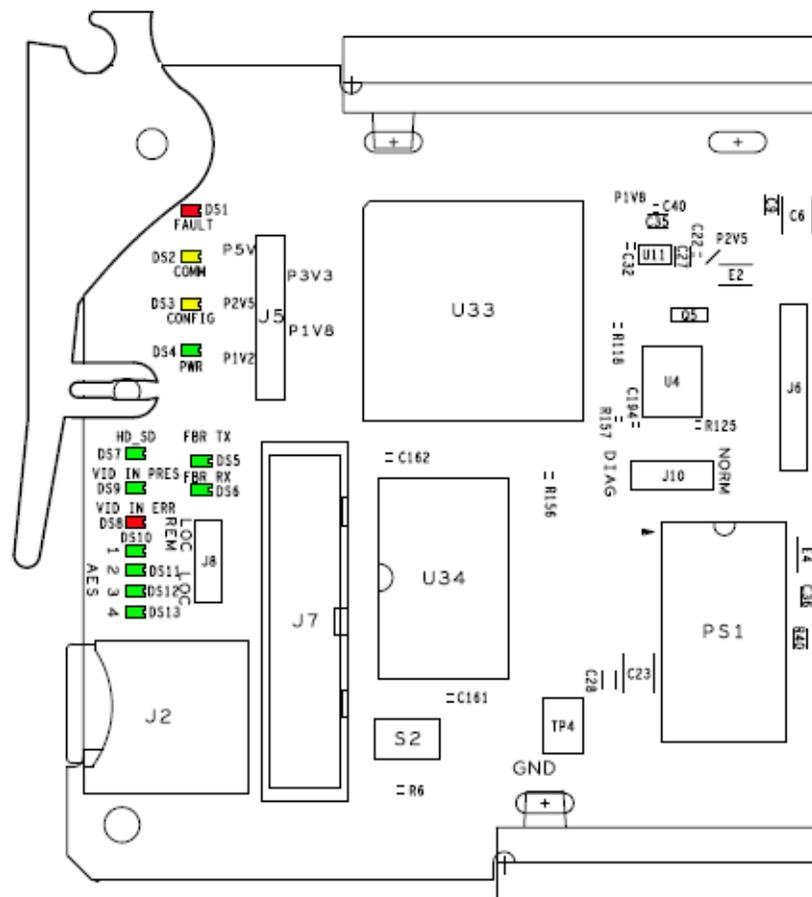
A continuous FAULT LED on (red) indicates an error situation and, when noted with the other indicator LEDs, can indicate a specific problem area. Table 3 describes signal output and LED states for the various input/reference combinations.

Table 3. LED Indicators

LED	State	Condition
FAULT (red)	Off	Normal operation
	On continuously	Module has detected internal fault.
	Long flash	Presence of reported warnings
COMM (yellow)	Off	No activity on frame communication bus
	Long flash	Location Command received by the module from a remote control system
	Short flash	Activity present on the frame communication bus
CONFIG (yellow)	Off	Module is in normal operating mode
	On continuously	Module is initializing, changing operating modes or updating firmware
	Flash	Synchronous with COMM led when executing location command
PWR (green)	Off	No power to module
	On continuously	Normal operation, module is powered
AES 1 (green)	Off	No AES1 output presence or forced to silence
	On	AES 1 output presence
AES 2 (green)	Off	No AES 2 output presence or forced to silence
	On	AES 2 output presence
AES 3 (green)	Off	No AES 3 output presence or forced to silence
	On	AES 3 output presence
AES 4 (green)	Off	No AES 4 output presence or forced to silence
	On	AES 4 output presence
HD_SD (green)	Off	Indicates the video input rate SD
	On	Indicates the video input rate HD
VID IN PRES (green)	Off	No presence of signal
	On	Presence of the signal
VID IN ERR (red)	Off	Normal video input
	On	Video input error, unknown or format mismatch
FBR TX (green)	Off	Indicates the video optical fiber output is disabled
	On	Indicates the video optical fiber output is enabled and an SFP submodule is installed
FBR RX (green)	Off	Indicates the video optical fiber input is disabled
	On	Indicates the video optical fiber input is enabled and an SFP submodule is installed

Remote Configuration

The 8925DMB-B and 8925DMB-U configuration and monitoring must be performed using a web browser GUI interface or a networked Newton Control Panel when the 8900NET Network Interface module is present in the GeckoFlex frame (8900FFN). Each of these interfaces is described below. A summary table of all module parameters including defaults, ranges, and Newton Control panel controls is given in Table 11 on page 53.

8900NET Module Information

Refer to the *8900NET Network Interface Module Instruction Manual* (software version 4.3.0) for information on the 8900NET Network Interface Module and setting up and operating the GeckoFlex 8900 frame network.

Note   Upgrade software and instructions for the 8900NET can be downloaded from the Grass Valley web site. Refer to *Contacting Grass Valley* on page 4.

Newton Control Panel Configuration

A Newton Control Panel (hard or soft version) can be interfaced to the GeckoFlex frame over the local network. Refer to the documentation that accompanies the Newton Modular Control System for installation, configuration, and operation information.

Control panel access offers the following considerations for module configuration and monitoring:

- Ability to separate system level tasks from operation ones, minimizing the potential for on-air mistakes.

- Ability to group modular products—regardless of their physical locations—into logical groups (channels) that you can easily manipulate with user-configured knobs.

- Recommended for real-time control of module configuration parameters, providing the fastest response time.

Note   Not all module functions are available with the control panel, such as factory default recalls.

An example of the Newton Configurator is shown in Figure 8.

Figure 8. Newton Configurator Example

Web Browser Interface

The web browser interface provides a graphical representation of module configuration and monitoring.

Use of the web interface offers the following considerations:

- Provides complete access to all module status and configuration functions, including naming of inputs and outputs, factory parameter and name default recalls, Save/Load module configuration functions, slot configurations, and SNMP monitoring controls.

- Web access will require some normal network time delays for processing of information.

- Configuration parameter changes may require pressing **Apply** button or **Enter**, upload processing time, and a manual screen refresh to become effective.

- Web interface recommended for setting up module signal and slot names, and reporting status for SNMP and monitoring.

Refer to the Frame Status web page shown in Figure 9 on page 23. The 8900 modules can be addressed by clicking either on a specific module icon in the frame status display or on a module name or slot number in the link list on the left.

Note   The physical appearance of the graphics on the web pages shown in this manual represent the use of a particular platform, browser and version of 8900NET module software. They are provided for reference only. Web pages will differ depending on the type of platform and browser you are using and the version of the 8900NET software installed in your system. This manual reflects an 8900NET module with software version 4.3.0, using Internet Explorer, the recommended web browser, and Windows XP operating system.

For information on status, fault monitoring and reporting shown on the Status web page, refer to *Status Web Page* on page 28.

Figure 9. Main Menu – Frame Status Web Page

The Links section lists the frame and its current modules. The selected link's Status page is first displayed and the sub-list of links for the selection is opened. The sub-list allows you to select a particular information page for the selected device.

Content display section displays the information page for the selected frame or module (frame slot icons are also active links).

Refresh button for manual update of page

Web Page Operations and Functional Elements

The following conventions and functional elements (shown at left) are used in GeckoFlex web page operations. (The examples shown throughout this manual represent 8900NET software version 4.0.2 or later):

Pulldown Menus **Locate Module**

Button —

Radio button —

Check box — Report Error

Refresh button —

Coarse Adjust

Fine Adjust

Enter

100

Low Limit   High Limit

Status Indicator

Entry Field
Name: KAM-HD-FS

Status LED —

8341_13
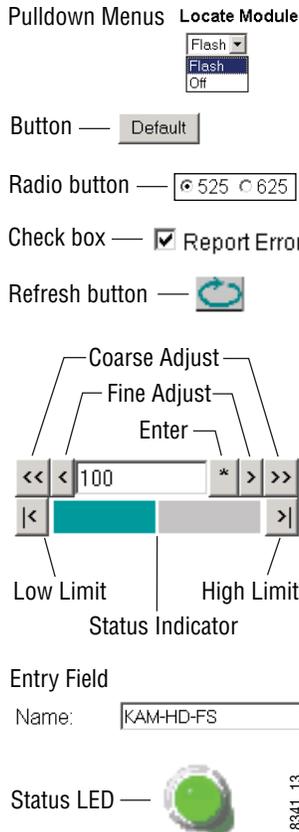
- Pulldown menus allow you to choose selections from a list.

- Clicking on a button performs an immediate action such as recall of defaults, clearing of states, learning configurations, and selecting all or none of a selection.

- Radio buttons are used to make a choice of one parameter in a group.

- Check boxes are used when a selection can be enabled or included in a group. Multiple check box selections or enables can be made for some parameters.

- A **Refresh** button (circular arrow) is provided at the top of each web page for manual refresh to view recently changed parameters.

- Each numerical adjustment control has a **Coarse** adjust button (left and right top double arrows) which increases or decreases the step value by a factor of 10. The **Fine** adjust button (left and right inside single arrows) increases or decreases the step value by 1.

  To change a value, use the arrow button controls or enter a value into the number field and select the **Enter** button (*****) or use the **Enter** key on your keyboard. The Status Indicator bar will follow the value selected.

  Use the **Low** and **High Limit** buttons to go directly to the lowest and highest limits for the parameter.

  After a parameter has been changed, it will take approximately 10 seconds for the change to be entered into the module backup memory. Allow the module time to update the change before removing the module from its slot.

- An entry field allows naming of various module functions such as input or output signals, asset tag, and slot identification.

- The **Status** LED icon reports communication status for the frame slot and is a link to the module Status web page where Warnings and Faults are displayed.

  LED colors indicate:

  - Green = Pass – no problems detected.

  - Yellow = Configuration error warning (presence of one warning), configuration mismatched, input missing, and input invalid.

  - Red = Fault condition detected (presence of one alarm).

Note   For the yellow and red color LED, the problem will be explained on the Status web page.

- Graphic and arrow colors used indicate the following:

  - Green = Pass – signal or reference present, no problems detected

  - Red = Fault – fault condition

  - Yellow = Warning – signal is absent or has errors

  - Gray = Not monitored

- Text colors indicate:

  - Black: Parameter names and information which can be modified

  - Blue: Read-only information about the module

  - Red: Warning

Web Page Headers

Each configuration web page has a Status and Identification Header similar to the one shown in Figure 10 below.

Note Information in the web page header will vary for some types of web pages.

Figure 10. Status Page Header

The header information on each web page includes the following:

- **Model** and **Description** are read-only generated by the module.

- **Frame Location** is defined on the 8900 Series GeckoFlex frame configuration web page.

- **Slot number** reports the module's location in the frame.

- **Input Video Standard** reports the input video type and rate selected on the System Config web page.

- **Input Video** reports the status of the video input to the module.

- **Fiber Module Type** reports (on the Status, I/O Config, Video Input, and Video Output web pages) the status or type of the fiber optic sub-module with one of the following four messages:

  - Not Installed,

  - RX/TX, 1310 nm,

  - Dual RX, or

  - Dual TX, 1310/1310 nm.

8925DMB-B and 8925DMB-U Links and Web Pages

5 8925DMB-U
  Status
  I/O Config
  System Config
  Video Input
  Audio De-Embedder
  Video Output
  User Settings
  Slot Config

The web interface 8900 GUI provides the following links and web pages for the 8925DMB-B and 8925DMB-U modules (shown at left):

- Status web page – reports input and output signals, frame bus communication status, module information, warnings and errors (page 28),

- I/O Config web page – shows the presence of the signals on a specific connector, allows naming of each input and enables or disables the signal reporting (page 30),

- System Config web page – set input video rate and line standards to be accepted by the module (page 32),

- Video Input web page – allows selection of the video input source and provide the status of all sources, including fiber optic submodules option inputs and indicates the embedded audio status (page 33),

- Audio De-embedder web page – lists the audio outputs available, allows selection of the stream to be de-embedded, selection of the resolution, and reports stream status (page 35),

- Video Output web page – enables/disables the fiber optic video output when a fiber optic submodule is installed (page 37),

- User Settings web page – allows recalling of factory defaults for all module parameters or factory signal names and provides a save/load configuration file function (page 38),

- Slot Config web page – provides Locate Module, Slot Identification, and Slot Memory functions along with links to the SNMP, LED Reporting, and Frame Alarm configuration web pages (page 41).

A summary table of all module parameters including defaults, ranges, and Newton Control panel controls is given in Table 11 on page 53.

Status Web Page

5 8925DMB-U
Status
I/O Config
System Config
Video Input
Audio De-Embedder
Video Output
User Settings
Slot Config

The Status web page (Figure 11 on page 29 for 8925DMB-U) shows the signal status of the input signal and communication with the frame bus. Color coding indicates the signal status, a quick view of the module including alarms and errors. Refer to *Web Page Operations and Functional Elements* on page 24 for an explanation of the color coding.

Note   On the 8925DMB modules, video and audio output signals are represented by five output signal arrows.

Header

The content of web page header is explained in *Web Page Headers* on page 26.

Module Physical Structure

Status is reported for each of the following audio and video signals:

- Video inputs indicate the status of the video inputs incoming on the BNC connectors, one or two possible fiber optic inputs (depending on the type of the fiber optic submodule installed),

- Video outputs are always gray, outputs are not monitored,

- Audio outputs are always gray, outputs are not monitored,

- Frame bus indicates the status of the communication bus to the 8900NET module.

- Fiber module shows if a fiber module is installed. When not installed, the graphic will be white and report **Fiber Module not Installed**.

Warning/Fault/Message Reporting

Faults, warnings, and informational messages from the module are displayed between the double bars below the graphic.

Status

The Front, rear and fiber status is given: PASS, WARNING, ERROR or EMPTY.

Front Module

There is information about the module, such as Part Number, Serial Number, Hardware Revision, Firmware Version, Software Version, Boot Version and Asset Tag (assigned on the Slot Config web page).

Figure 11 illustrates the inputs and outputs on an 8925DMB-U module.
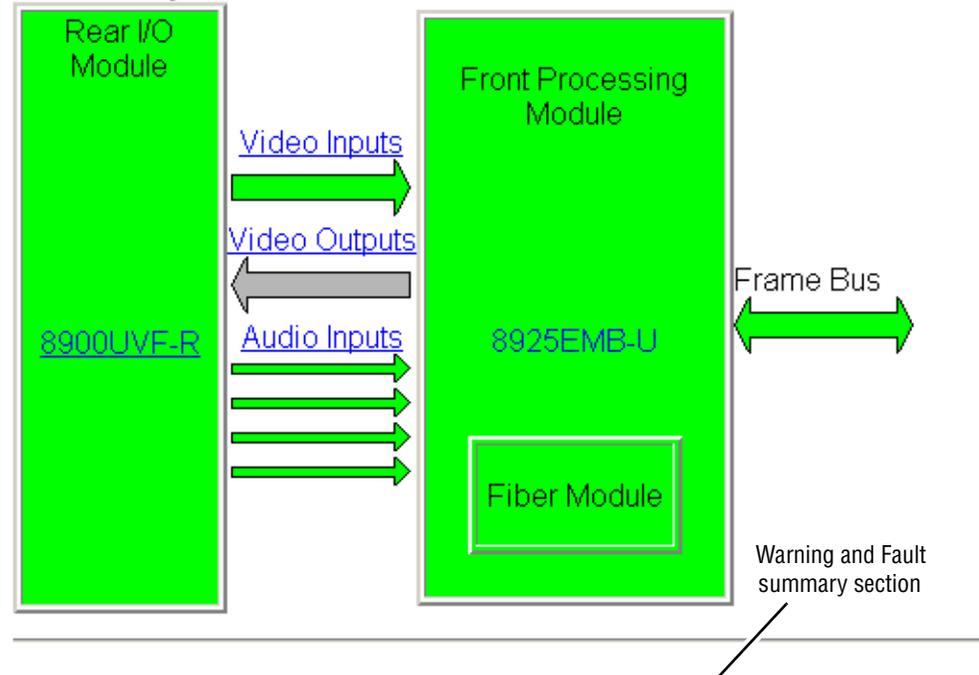
Figure 11. Status Web Page for 8925DMB-U Module

I/O Config Web Page

Use the I/O Config web page (Figure 12 for the 8925DMB-U and Figure 13 on page 31 for the 8925DMB-B) for the following:

8900UVF-R Rear Module Configuration

All of the input and output connectors on the corresponding 8925DMB-B or 8925DMB-U rear module are illustrated on the I/O Config web page. The inputs can be configured with the following controls:

- **Signal names** – type of the desired input name (up to 12 characters) into the corresponding boxes for each input. The status of each input is indicated by the color of the display, the color legend is under the table.

    Note   The status color yellow can also indicate that the input is invalid.

- **Reporting** – the status reporting can be enabled or disabled to the module level by selecting or deselecting the corresponding checkbox in the **Reporting** column for each input.

Figure 12. 8925DMB-U I/O Config Web Page

Note   The outputs are not monitored in this application. The Fiber Optic interfaces are white indicating there is no submodule installed.

Figure 13. 8925DMB-B I/O Config Web Page

I/O Config

Model: 8925DMB-B Description: HD/SD Digital Audio De-Embedder
Frame Location: not assigned , Slot: 7
Input Video Standard: HD 1080i/59.94   Input Video: Coax In : Present
Fiber Module Type: Not Installed

8900BVF-R Rear Module Configuration

Signal Names	Reporting	I/O Connectors						Reporting	Signal Names
.	.	Audio Output 1	J1			J2	Audio Output 2	.	.
.	.	Audio Output 3	J3			J4	Audio Output 4	.	.
.	.	Video Output	J5			J6	Video Output	.	.
.	.	Reclocked Video Output	J7			J8	Video Output	.	.
Coax In	☑ Enabled	Coax Video Input	J9			Fiber	Fiber 2 Video In/Out	☑ Enabled	Fiber In2
							Fiber 1 Video In/Out	☑ Enabled	Fiber In1

Legend:

Present	Not Present	Not Monitored	Not Available

System Config Web Page

Use
this
link

Use the System Config web page (Figure 14) to set the following system configuration parameters for the module:

Input Standard Selection

Select any of the following input standards to be accepted by the module:

- HD 1080i/59.94,

- HD 1080i/50,

- HD 1080p/23.98,

- HD 1080sf/23.98,

- HD 720p/59.94,

- HD 720p/50,

- SD 480i/59.94, and

- SD 576i/50.

When a video format is input to the module it will be automatically detected. If the standard matches the user selection it will be declared as valid or it will generate an **Invalid Format** error.

Defaults Button

Select the **Defaults** button to restore the default video standard (all standards selected).

Figure 14. System Config Web Page

Video Input Web Page

5 8925DMB-U
   Status
   I/O Config
   System Config
Use this — Video Input
link
   Audio De-Embedder
   Video Output
   User Settings
   Slot Config

Use the Video Input web page (Figure 15 on page 34) to select and monitor the video input source to the module with the following:

Video Input Selection

This section provides the following for the video input signal:

- **Select Input Video** – select the input source from the rear module as one of the following input sources. Only one source can be enabled at a time.

  - **Coax** – select the electrical input at BNC J9 as the video input.

  - **Fiber RX1** – check the **Enabled** checkbox to enable the Fiber RX1 input as the input video (SFP-13103G-M1DRX or SFP-13103G-M1TRX submodule must be installed).

  - **Fiber RX2** – check the **Enabled** checkbox to enable the output (SFP-13103G-M1DRX submodule must be installed).

- **Signal Name** – the signal name defined on the I/O Config web page will appear in this field.

- **Signal State** – this field reports the status of the input video signal as Present, Not present, Not supported (in the case of no fiber submodule installed) or Invalid format.

Embedded Audio Status

This section gives the name and the state of the incoming embedded audio streams.

- **Input Stream Name** – name entered in the I/O Config web page with the extension which indicates the group and the stream number (for example Coax In.G1.S2 means Stream 2 of the Group 1),

- **Signal State** – indicates the incoming embedded audio streams presence,

- **Sample Rate** – indicates the frequency of the audio,

- **Mode** – means the maximum audio resolution which can be 20 or 24 bits. It is only indicated in SD format.

Defaults Button

Select the **Defaults** Button to restore the default Video Input Source (Coax).

Figure 15. Video Input Web Page

Video Input

Model: 8925DMB-U Description: HD/SD Digital Audio De-Embedder
Frame Location: not assigned , Slot: 5
Input Video Standard: SD 480i/59.94   Input Video: Coax In : Present
Fiber Module Type: Dual TX, 1310/1310 nm

Video Input Selection

	Select Input Video	Signal Name	Signal State
Coax	●	Coax In	Present
Fiber RX1	○	Fiber 1	Not Supported
Fiber RX2	○	Fiber 2	Not Supported

Embedded Audio Status

Input Stream Name	Signal State	Sample Rate	Mode
Coax In.G1.S1	Present	48kHz	20 bit
Coax In.G1.S2	Present	48kHz	20 bit
Coax In.G2.S1	Not Present	----	-----
Coax In.G2.S2	Not Present	----	-----
Coax In.G3.S1	Not Present	----	-----
Coax In.G3.S2	Not Present	----	-----
Coax In.G4.S1	Not Present	----	-----
Coax In.G4.S2	Not Present	----	-----

Defaults

Audio De-Embedder Web Page

5 8925DMB-U
Status
I/O Config
System Config
Video Input
Audio De-Embedder
Video Output
User Settings
Slot Config

Use this link

Use the Audio De-Embedder web page (Figure 16) to set the audio to be de-embedded in which group and stream.

Audio Output – lists the four possible audio outputs.

Stream Selection – select which audio stream to de-embed to the corresponding Audio Output. Refer to the pulldown list in Figure 16.

Resolution – select **Pass** or force to **20 Bit** or **24 Bit** for the stream.

Stream Status – reports the status of the selected audio stream as **Present**, **Not Present**, or **Silence**.

Note   When an audio input stream selection becomes missing/not present, the output is forced to Silence.

Defaults Button

Select the **Defaults** button to restore the default Audio De-Embedder parameter (see selections in Figure 16).

Figure 16. Audio De-Embedder Web Page

Video Output Web Page

Use this link

Use the Video Output web page to enable or disable the fiber optic sub-module outputs when present.

Note   Fiber optic submodule will be present when either the 1310NM- DTL or 1310NM-TRL fiber optic submodule is installed.

Fiber Video Output

This section allows enabling of the fiber video output signals. Both outputs can be enabled at the same time.

- **Fiber TX1** – check the **Enabled** checkbox to enable the output (SFP-13103G-M1DTX submodule installed).

- **Fiber TX2** – check the **Enabled** checkbox to enable the output (SFP-13103G-M1DTX or SFP-13103G-M1TRX submodule installed).

Defaults Button

Select the **Defaults** button to restore the default Video Output parameters (fiber outputs disabled).

Figure 17. Video Output Web Page

User Settings Web Page

The User Settings web page (Figure 18) provides a File Operations section to save/load configuration files to an external location and buttons to recall factory default parameters and signal names for the entire module.

Figure 18. User Setting Web Page

File Operations

- **Save To…** – selecting the **Save To..** button will bring up the screen shown in Figure 19. Select **Save** to bring up the **Save As** screen shown in Figure 20 on page 39.

Figure 19. File Download Function
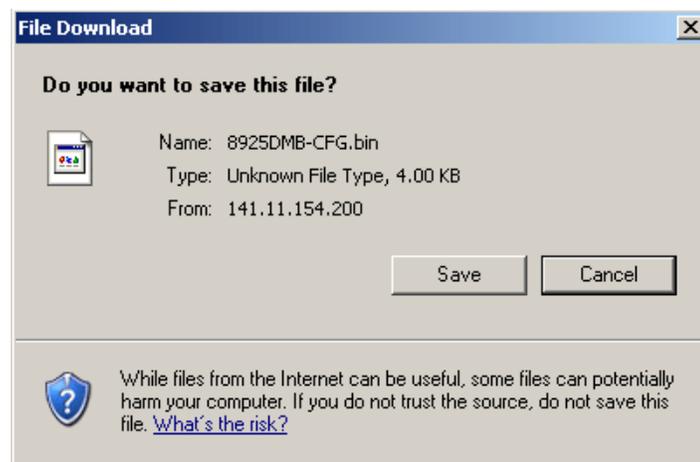
In the **Save As** screen (Figure 20), select or create a directory in which to store your files. Type in a file name for the current module configuration and select **Save**.

Figure 20. Save As Screen
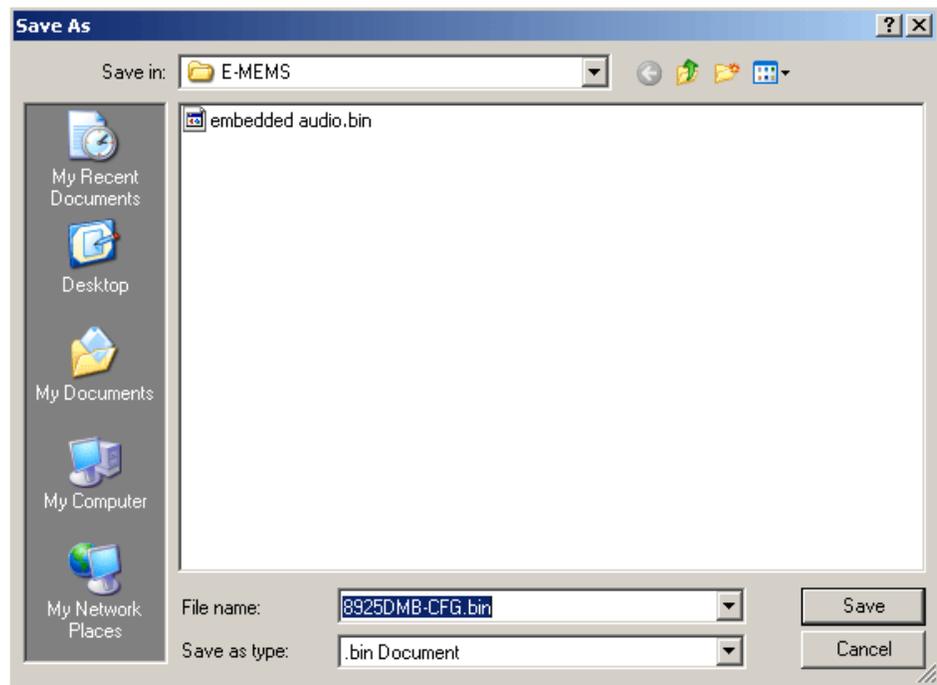
- • **Load From...** – selecting the **Load From...** button in the User Settings web page will bring up the Load Settings web page shown in Figure 21.

Figure 21. Load Settings Web Page

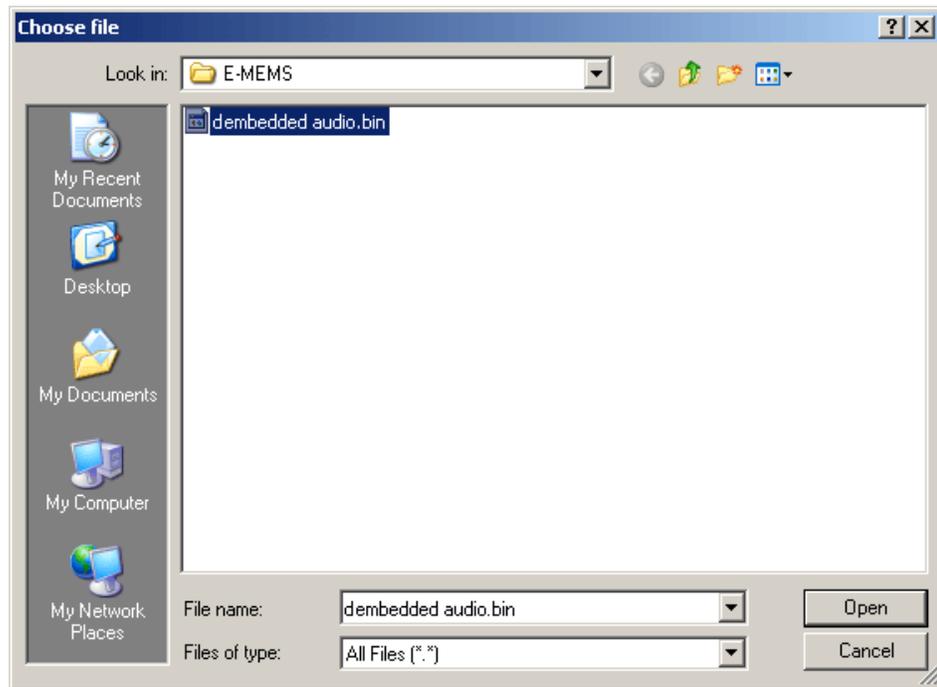Select the **Browse...** button to bring up the Choose File screen (Figure 22 on page 40) and locate the file you wish to load. You may also type in the path and the filename.

Figure 22. Choose File Screen

Click on the file you wish to load and select the **Open** button. This will place the file in the Load Settings web page **Enter filename** field.

Select the **Load** button on the Load Settings web page (Figure 21 on page 39) to load this file configuration into the module.

Set Factory Defaults Button

Select the **Set Factory Defaults** button to recall factory settings to the entire module. Refer to the Configuration Summary table on Table 11 on page 53 for a complete list of parameter defaults and ranges.

Set Factory Names Button

Select the S**et Factory Name**s button to recall factory signal names to the module. Defaults for all signal names are displayed on the I/O Config web page shown in Figure 12 on page 30 and Figure 13 on page 31.

Slot Config Web Page

5 8925DMB-U
   Status
   I/O Config
   System Config
   Video Input
   Audio De-Embedder
   Video Output
   User Settings
   Slot Config

Use
this
link

UUse the Slot Config web page shown in Figure 23 on page 42 to perform the following functions on the module.

Note   This Slot Config web page reflects the use of 8900NET (Net Card) software version 4.3.0.

Locate Module

Selecting **Flash** from the **Locate Module** pulldown flashes the yellow COMM and CONF LEDs on the front of the module so it can be located in the frame.

Slot Identification

You may identify the module by typing a specific name in the **Name** field. The assigned name is stored on the 8900NET module and travels with the 8900NET module if it is moved to another frame. Select **Default** to enter the factory default module name.

An asset identification may be entered in the **Asset Tag** field. This will appear on the module Status web page and in the NetConfig inventory report.

Slot Memory

The slot configuration for each media module is automatically polled and refreshed periodically (about every 50 minutes) by the 8900NET module when the **Always Slot Refresh** checkbox on the 8900NET Configuration web page (with 4.3.0 software) and/or the **Restore upon Install** checkbox on any media module Slot Config web page is selected.

When the **Restore upon Install** checkbox on any media module Slot Config web page has been selected, the current configuration from that module is saved in slot memory on the 8900NET module. This allows the current module to be removed and when another module of the same part number, and software version is installed, the configuration saved to the 8900NET module will be downloaded to the installed module. The **Restore upon Install** checkbox must be selected before the current module with the saved configuration is removed.

Note   Make sure all modules of the same model type are running the same software version and have the same part number silk-screened on the printed circuit board. Downloading a configuration to a module with a different software version or part number can produce unexpected results.

If a different type of module is installed in this slot, a warning message will state that the original module type has been replaced with another module type. In this case, a **Clear** button will appear allowing you to clear the stored configuration from the previous module.

You may also select the **Learn Module Config** button at any time to save the current configuration for this slot. The configuration is saved on the 8900NET module. If the 8900NET module is removed or powered down, the stored configurations are not saved.

When no **Restore upon Install** checkboxes on any of the media module Slot Config web pages are selected and the **Always Slot Refresh** checkbox on the 8900NET Configuration web page is unchecked, the slot refresh polling function on the 8900NET module will be disabled. See the **Always Slot Refresh** checkbox description in the *8900NET (Net Card) Network Interface Module Instruction Manual* for more details.

Note   Uncheck the **Restore Upon Install** button before downloading new software.

Figure 23. Slot Config Web Page

Frame Health Reporting

This web page allows configuration of the alarms and warnings that are reported to the external Frame Health Alarm connector on the rear of the GeckoFlex frame. Refer to *8900NET Instruction Manual* for more details.

LED Reports Link

Select the LED Reports link to open the 8900NET LED Reporting web page. Normally, every module in the frame will report to the 8900NET module any Fault, Signal Loss, Reference Loss, or Config Error conditions. These conditions will be reflected by the status LEDs on the 8900NET module. Using this web page, any of these conditions can be disabled from being reported to the 8900NET module for each individual module and other components (power supplies, fans) in the frame

SNMP Trap Reports Link

Select the SNMP Trap Reports link to open the 8900NET SNMP Reporting web page. This link will only be present when SNMP Agent software has been installed on the 8900NET module. This web page allows configuration of which alarms and warnings that are reported to the SNMP management software.

Refer to the *8900NET Instruction Manual* for complete details on using the 8900NET web pages.

Software Updating

Software updating of the 8925DMB-B and 8925DMB-U modules is done using the NetConfig Networking Application PC option. This application is available free of charge from the Grass Valley web site.

The procedure for updating software with NetConfig is given in the 8925DMB-B and 8925DMB-U Release Notes when software updates become available. Check the Grass Valley web site for update information. Refer to *Contacting Grass Valley* on page 4 for more information.

All modular product documentation can be found in PDF format on the Grass Valley web site at this link:

www.grassvalley.com/docs/modular

Status Monitoring

There are a number of ways to monitor frame and module status. These methods are summarized here. For more detailed information, refer to the *8900NET (Net Card) Network Interface Module Instruction Manual* and the *8900 Gecko* or *8900 GeckoFlex Frame Instruction Manuals.*

All modular product documentation is available on-line in PDF format at this link:

www.grassvalley.com/docs/modular

The main status monitoring methods include the following:

- External frame alarm output on the rear of the 8900 frame with reporting from the Module Health Bus and other frame status alarm reports,

- LEDs on the Frame, 8900NET module, and individual frame media modules,

- Web browser status reporting for each frame component, and

- SNMP traps, captured by Grass Valley's NetCentral or another SNMP Manager Application.

Note   SNMP trap information is only available when an SNMP Agent has been installed and configured.

External Frame Alarm

An external Frame Alarm output is available on pins 8 and 9 of the RS-232 connector on the rear of the frame. The Frame Alarm outputs a voltage level indicating there is an alarm condition on the Module Health Bus or one of the other frame components reported to the Frame Monitor module in a Gecko 8900TF or GeckoFlex 8900FF frame or the 8900NET module in an 8900TFN and GeckoFlex 8900FFN frame.

- The Module Health bus is a separate line on the frame motherboard that provides a means for older or less capable modules (such as DAs with no microprocessor) that cannot communicate over the Frame (serial) bus to report warning and alarm conditions to the external Frame Alarm. All media modules in the frame report a voltage level to this line when a warning condition occurs on the module. The specific warning or module location is not reported, only an indication that an warning condition has occurred.

- Frame alarm reporting from other frame components can be enabled and disabled using DIP switches on the Frame Monitor and 8900NET module. For frames with an 8900NET module, the Frame Alarm Reporting web page allows configuration of the alarms and warnings that are reported to this external Frame Health Alarm.

LED Reporting

LEDs on the front of media modules, the Frame Monitor or 8900NET modules, and the front covers of the 8900TF/TFN and GeckoFlex FF/FFN frames indicate status of the frame and the installed power supplies, fans in the front covers, and module status. (The 8900TX-V/A and GeckoFlex 8900FX frames have no LED indicators on the front cover.)

- LED reporting from the modules in the frame to the 8900NET module is configurable using the 8900NET LED Reporting web page.

- The Status LEDs for this module are described in *Operation Indicator LEDs* on page 19. LEDs for the 8900NET module are described in the *8900NET (Net Card) Network Interface Instruction Manual*.

Web Browser Interface

The 8900NET module controls a web browser GUI that indicates frame and module status on the following web pages:

- Frame Status web page – reports overall frame and module status in colored graphical and text formats. Refer to Figure 9 on page 23 for an example.

- Module Status web page (Figure 11 on page 29) – shows specific input and reference signal configuration error status to the module along with module status and information (part number, serial number, hardware version, software/firmware/boot versions, and Asset number (as assigned on the Slot Config web page).

- A Status LED icon on each web page reflects the module status on the module Status web page where warnings and faults are displayed and is a link to the module Status web page.

SNMP Reporting

The Gecko 8900 Series system uses the Simple Network Monitoring Protocol (SNMP) internet standard for reporting status information to remote monitoring stations. When SNMP Agent software is installed on the 8900NET module, enabled status reports are sent to an SNMP Manager such as the Grass Valley's NetCentral application.

Status reporting for the frame is enabled or disabled with the configuration DIP switches on the 8900NET module. Most module status reporting items can be enabled or disabled on individual configuration web pages.

Service

The 8925DMB-F modules make extensive use of surface-mount technology and programmed parts to achieve compact size and adherence to demanding technical specifications. Circuit modules should not be serviced in the field unless otherwise directed by Customer Service.

Power-up Diagnostics Failure

If the module has not passed self-diagnostics, do not attempt to troubleshoot. Return the unit to Grass Valley (see *Module Repair* on page 46).

Troubleshooting

Electronic Circuit Breaker

The electronic circuit breaker works during a fault condition or an overcurrent which stops the module.

Remove the module and replace it in the frame. If the problem persists, please refer to the Grass Valley Customer Service (see *Contacting Grass Valley* on page 4).

Module Repair

If the module is still not operating correctly, replace it with a known good spare and return the faulty module to a designated Grass Valley repair depot. Call your Grass Valley representative for depot location.

Contacting Grass Valley

If you need to contact Grass Valley for any module issues, refer to *Contacting Grass Valley on page 4* at the front of this document for the Grass Valley Customer Service Information number.

Table of Alarms

Table 4 below describes the different type of alarms reported to upper level devices such as the 8900NET module and SNMP reporting applications.

Table 4. List of Alarms for 8925DMB Module

Alarm Type	Web Page Description	FAULT LED	VID IN ERR LED	Comments	Status Reported to 8900Net & SNMP
Fault	Firmware failure	On	Off	Firmware configuration failure	Yes
Fault	Firmware DCM Not Locked	On	Off	Firmware internal system clock failure	Yes
Fault	Bad firmware image	On	Off	A wrong firmware Image has been downloaded	Yes
Fault	Wrong rear module (incompatible with 8925DMB)	On	Off		Yes
Fault	Fiber module failed, replace	On	Off		Yes
Fault	Power supply failure	On	Off		Yes
Warning	Coax video input signal not detected	Flashing	Off	Video Input Coax is selected	Yes
Warning	Coax video input is invalid or the wrong format	Flashing	On	Video Input Coax is selected	Yes
Warning	Fiber 1 video input signal not detected	Flashing	Off	Video Input Fiber 1 is selected	Yes
Warning	Fiber 1 video input is invalid or wrong format	Flashing	On	Video Input Fiber 1 is selected	Yes
Warning	Fiber 1 video input not supported by hardware	Flashing	Off	Video Input Fiber 1 is selected	Yes
Warning	Fiber 2 video input signal not detected	Flashing	Off	Video Input Fiber 2 is selected	Yes
Warning	Fiber 2 video input is invalid or wrong format	Flashing	On	Video Input Fiber 2 is selected	Yes
Warning	Fiber 2 video input not supported by hardware	Flashing	Off	Video Input Fiber 2 is selected	Yes
Warning	Hardware configuration does not support selected fiber video output	Off	Off	Fiber module is an RX/TX and user chose to enable Fiber TX1 or fiber is Dual RX	Yes
Warning	Coax Video Standard does not match with selection	Flashing	On	Current Coax Video input is not in the Input Standard Selection table	Yes
Warning	Fiber 1 Video Standard does not match with selection	Flashing	On	Current Fiber 1 Video input is not in the Input Standard Selection table	Yes
Warning	Fiber 2 Video Standard does not match with selection	Flashing	On	Current Fiber 2 Video input is not in the Input Standard Selection table	Yes
Information	Fiber module is not installed	Off	Off	Fiber Input and Output are not selected	No
Information	Coax video input signal not detected	Off	Off	Video coax input not present, but not selected	No
Information	Fiber 1 video input signal not detected	Off	Off	Video fiber 1 input not present, but not selected	No
Information	Fiber 2 video input signal not detected	Off	Off	Video fiber 2 input not present, but not selected	No

Note Please refer to the *Operation Indicator LEDs* on page 19 and *Web Page Operations and Functional Elements* on page 24 for the status and the color of the LED.

Specifications

Table 5. Table of Specifications

Main Features			
HD/SD video format supported by SMPTE 274M, SMPTE 296M, and SMPTE 259M-C	SMPTE 274M	SMPTE 296M	SMPTE 259M-C
	1080i/59.94	720p/59.94	480i/59.94
	1080i/50	720p/50	576i/50
	1080p/23.98		
	1080sF/23.98		
Video Processing	- EDH/CRC insertion - Video Input Status including incoming embedded audio status - Video Standard Selection		
De-embedding Processing	- Up to 4 selectable AES pairs among incoming embedded audio groups - 48 kHz supporting - AES out Auto mute if loss of selected AES stream - Force AES output to 20 or 24 bits resolution (local ZCUV generation) - ZCUV pass-through (default) or local generation - Audio control packet decoding		
Audio Processing	- 48 kHz output rate - 48 kHz Audio PCM or No PCM" format supported		
Maximum power consumption	<7.4 Watt / 615mA @ +12 V		
Video Delay from Input to Output	HD: <400ns SD: <1.2μs		
Audio Min Delay from Input to Output	HD/SD: 20/40 Audio samples (0.41 / 0.83ms) @ 48 kHz		
HD/SD Multi-format Auto Detection			
Auto-detect and locking time, from loss of signal or format change to correct signal at output end	< 0.5 seconds Note: if it is a switch between HD/HDM formats (HD 50 Hz/HD 59.94 Hz) it may be longer: < 1 seconds		
Operational frequency range of HD/SD SDI input	Nominal rate ±110 ppm		
Mechanical			
Frame type	GeckoFlex		
Number of frame slots required	1 slot		
Rear module type			
8925DMB-B	8900BVF-R		
8925DMB-U	8900UVF-R		
Rear module retainer maximum screw torque	4-5 inch-lb./0.45-0.6Nm		

Table 6. Environmental and Miscellaneous Specifications

Environmental / Miscellaneous

Safety	ANSI/UL60950-1	Safety of Information Technology Equipment, including Electrical Business Equipment (2003).
	CAN/CSA C22.2, No. 60950-01	Safety of Information Technology Equipment, including Electrical Business Equipment.
	cULus certification	File number: E300838
	IEC 60950-1	Safety of Information Technology Equipment, including Electrical Business Equipment (2003).
	EN60950-1	Safety of Information Technology Equipment, including Electrical Business Equipment (2001).
	73/23/EEC Low voltage directive	(19/02/73) amended by 93/68/EEC (22/07/93)
	89/336/EEC directive	(05/05/89) amended by 93/68/EEC (22/07/93)
EMC	FCC Class A	CISPR Pub. 22 (1985)
	EN55103-1	(1997)
	EN55103-2	(1997)
EU marking	93/68/EEC	(22/07/93)
Climatic specifications	ETS 300 019-1-3 class 3.1 (Feb. 1992)	Operating temperature (for 8900FFN model): + 0°C to + 45°C Operating humidity: 10% to 95% non-condensing
	ETS 300 019-1-1 class 1.1 (Feb. 1992)	Storage temperature: - 10 °C to 70°C
MTBF at 40ºC		
	8925DMB front module	731,000 hours
	8900UVF-R rear module	25,575,000 hours
	8900UVF-R rear module	26,385,000 hours

Table 7. Digital Video Specifications

Digital Video Input

Serial digital video input signal	SMPTE 292M (HD) and SMPTE 259M-C (SD) compliant
Number of inputs	1 HD/SD (J9)
Connector type	BNC
Jitter tolerance	RP184-1996 compliant
Input return loss	>15 dB (5 MHz - 1.485 MHz)
Input impedance	75 ohms
Maximum cable length equalization	HD: 140m Belden 1694A SD: 350m Belden 1694A

Digital Video Outputs

Serial digital video output signal	SMPTE 292M (HD) and SMPTE 259M-C (SD) compliant
Active loop through output	1 reclocking output (J7)
Number of outputs, names	3 HD/SD outputs (J5, J6, J8)
Connector type	BNC
Signal level	800 mV ± 10%
Equalization	If coax input selected
Reclocking	Yes
Reclocked SDI output electrical length	4T (SD); 5T (HD); T = 1/2 pixel rate

Table 7. Digital Video Specifications

Timing jitter (HPF 10 Hz)	HD/SD: 1UI/0.2UI
Alignment jitter	HD/SD: 0.2UI (HPF 100kHz) / 0.2UI (HPF 1kHz)
Output return loss	>15 dB (5 MHz - 1.485 MHz)
Output impedance	75 ohms
Digital Audio Outputs		
	Balanced Outputs	Unbalanced Outputs
Digital audio output signal	AES3-1997, Tech 3250-E	AES3-id-2001
Number of outputs	4 (J1, J2, J3, J4)	4 (J1, J2, J3, J4)
Output names	AES 1, 2, 3, 4	AES 1, 2, 3, 4
Connector type	Three pin terminal block	BNC
Output rise / Fall time	5ns to 30ns @ 110 Ohms	10 to 20ns @ 75 Ohms
Differential voltage range	3.2 V p-p +/- 0.2 @ 110 Ohms	0.95 ± 0.05V p-p @ 75 Ohms
Output return loss	> 15 dB (100kHz - 128 FS)	> 15 dB (100 kHz - 128 FS)
Output impedance	110 Ohms +/- 20 %	75 Ohms ± 20 %
Sampling rates supported	48 kHz	48 kHz
Audio data format	PCM or non-PCM (SMPTE 337M-2000)	

Table 8 provides the video and audio latency and video/audio offset
values between the audio and video for software versions 1.0.0 and 2.0.0.

Table 8. Video/Audio Latency and Video/Audio Offset

Input Format	Video Latency Versions 1.0.0 and 2.0.0	Maximum Audio Latency Versions 1.0.0 and 2.0.0	Video/Audio Offset Versions 1.0.0 and 2.0.0
SD (all)	38 T (1.4 µs)	36 AS (0.75 ms)	0.75 ms
HD (all)	49 T (330 ns)	18 AS (0.38 ms)	0.38 ms

Table 9. SFP Receiver/Transceiver Fiber Optic Submodule Specifications

Model Number	SFP-13103G-M1DRX	SFP-13103G-M1TRX
Low wavelength	1260nm	1260nm
High wavelength	1620nm	1620nm
Receiver channels	2	1
Connector type	LC	
Fiber support	Single mode	
Data rate	50Mb/s to 3Gb/s	
Maximum distance @ 3Gb/s	10km	
Minimum distance	30km	

Table 10. SFP Transmitter/Transceiver Fiber Optic Submodule Specifications

Model Number	SFP-13103G-M1DTX	SFP-13103G-M1TRX
Wavelength 1	1310 nm	1310 nm
Wavelength 2	1310 nm	N/A
Transmit channels	2	1
Connector type	LC	
Fiber support	Single-mode	
Data rate	143 Mb/s to 2.97 Gb/s	
Power output	-5 to 0 dBm (-2dBm typical)	
Maximum distance	10 km[1]	
Maximum distance	20 km	

[1] The 1310 nm Dual Transmitter (SFP-13103G-M1DTX) and Transceiver (SFP-13103G-M1TRX) require no attenuation between fiber transmitter and receiver connections at any length.

Functional Description

A block diagram of the 8925DMB front module with fiber capability is shown in Figure 24.

Figure 24. 8925DMB Front Module Block Diagram
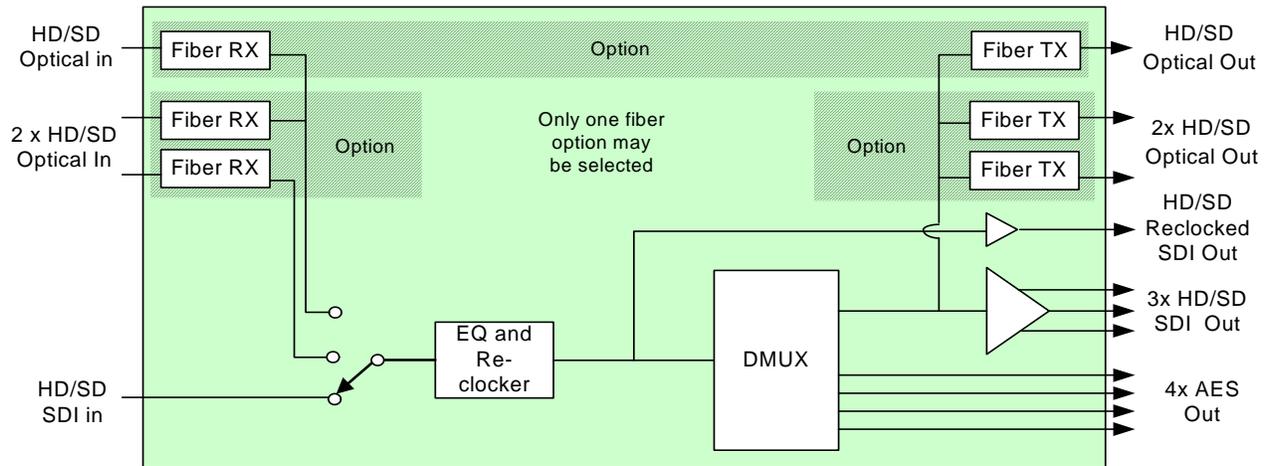
Configuration Summary Table

Table 11 provides a complete summary of the module functions and a comparison of the functionality available with each control type along with the ranges and default values for each parameter and notes on each control.

Table 11. Summary of Configuration Functions

Function Type	Default	Range/Choices Resolution	Web Page/ Function Name	Newton Control Panel
Coax Video Input signal loss reporting	Enable	Enable or Disable	I/O Config/ Coax Video Input Reporting Enabled checkbox	N/A
Fiber 1 Input submodule video input signal loss reporting (SFP-13103G-M1DRX or SFP-13103G-M1TRX option required for Fiber RX1)	Enable	Enable or Disable	I/O Config/ Fiber 1 Video Input Reporting Enabled checkbox	N/A
Fiber 2 Input submodule video input signal loss reporting (SFP-13103G-M1DRX option required for Fiber RX2)	Enable	Enable or Disable	I/O Config/ Fiber 2 Video Input Reporting Enabled checkbox	N/A
Input Standard Selection	All standards enabled	HD 1080i/59.94, 720p/59.94, HD 1080i/50, HD 720p/50, HD 1080p/23.93, HD 1080sf/23.98, 480i/59.94, and 576i/50	System Config/ Input Standard Selection Input Standard checkboxes	N/A
Video Input Select (select source for input video)	Coax	Coax, Fiber RX1, or Fiber RX2	Video Input/ Input Standard Selection Select Input Video radio button	VinSrcSel
Audio Output 1 Stream Selection Audio Output 2 Stream Selection Audio Output 3 Stream Selection Audio Output 4 Stream Selection	Coax In.G1.S1, Coax In.G1.S2, Coax In.G2.S1, Coax In.G2.S2,	Force Silence, Coax In.G1.S1, Coax In.G1.S2, Coax In.G2.S1, Coax In.G2.S2, Coax In.G3.S1, Coax In.G3.S2, Coax In.G4.S1, Coax In.G4.S2.	Audio De-Embedder/ Audio Output 1-4 Stream Selection pulldown	DmbAES1Sel DmbAES2Sel DmbAES3Sel DmbAES4Sel
Audio Output 1 Resolution Audio Output 2 Resolution Audio Output 3 Resolution Audio Output 4 Resolution	Pass	Pass, 20 bit, or 24 bit	Audio De-Embedder/ Audio Output 1-4 Resolution pulldown	Out1ResSel Out2ResSel Out3ResSel Out4ResSel

Table 11. Summary of Configuration Functions

Function Type	Default	Range/Choices Resolution	Web Page/ Function Name	Newton Control Panel
Enable Fiber TX1 output (SFP-13103G-M1DRX option required for Fiber TX1)	Disable	Enable or Disable	Video Output Fiber Video Output Fiber TX1 Enabled checkbox	N/A
Enable Fiber TX2 output (SFP-13103G-M1DTX or SFP-13103G-M1TRX option required for Fiber TX2))	Disabled	Enabled or Disabled	Video Output Fiber Video Output Fiber TX2 Enabled checkbox	N/A
Recall factory default parameters	–	–	User Settings/ Set Factory Defaults button	N/A
Recall factory names	–	–	User Settings/ Set Factory Names button	N/A

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