

# HD-MD421

# 6x14K60 4:2:0 Multiformat AV Switcher

Web Interface Guide Crestron Electronics, Inc.

#### **Original Instructions**

The U.S. English version of this document is the original instructions. All other languages are a translation of the original instructions.

#### Regulatory Model: M202028002

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Routing		27
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# Introduction

The HD-MD421 is a high-performance 4K60 4:2:0 multiformat AV switcher equipped with four HDMI® inputs, two DM Lite® inputs, one mirrored HDMI and DM Lite® output with 4K scaler, four analog audio inputs, and one analog audio output. The HD-MD421 supports automatic switching of HDMI and DM Lite inputs, advanced EDID management, and native Crestron® control via Ethernet.

# Web Interface Configuration

The web interface of the HD-MD421 allows you to view status information and configure network and device settings.

## Access the Web-based Configuration Interface

The web-based configuration interface is accessed from a web browser. The following table lists various operating systems and the corresponding supported web browsers.

	• •		
OPERATING SYSTEM	SUPPORTED WEB BROWSERS		
Windows <sup>®</sup> operating system	Chrome™ web browser, version 31 and later		
	Firefox® web browser, version 31 and later		
	Internet Explorer® web browser, version 11 and la		
	Microsoft Edge® web browser, version 86 and later		
macOS <sup>®</sup> operating system	Safari® web browser, version 6 and later		
	Chrome web browser, version 31 and later		
	Firefox web browser, version 31 and later		

#### Operating System and Supported Web Browsers

## Access the Web Interface with a Web Browser

1. Enter the IP address of the HD-MD421 into a web browser.

**NOTE:** To obtain the IP address, press the **Setup** button on the HD-MD421 to display the IP address on the HDMI output. The IP address is displayed for 20 seconds.

- 2. Enter the username in the **Username** field. The default username is *admin*.
- 3. Enter the password in the **Password** field. The default password is *admin*.

#### **NOTES:**

- The username and password are case sensitive.
- It is recommended that the default username and password be changed. For information about changing the username and password, refer to User Management (on page 16).
- 4. Click Sign In.

# Actions Menu

The **Actions** drop-down menu is displayed at the top right side of the interface and provides quick access to common device functionality of the HD-MD421, such as:

- Updating Firmware
- Restoring
- Rebooting
- EDID Management
- Uploading Configuration
- Downloading Configuration

CRESTRON.				
HD-MD421	✓ Action			
	Update Firmware Version			
	t⊐ Restore Device			
✓ Status 🍄 Settings 🕂 Routing	<ul> <li>Reboot Device</li> </ul>			
	🕑 EDID Management			
▹ General	Upload Configuration			
Input/Output Status	Download Configuration			
Network				

### Rebooting the HD-MD421

Certain changes to the settings may require the HD-MD421 to be rebooted to take effect. To reboot the device, do the following:

1. Click **Reboot Device** in the **Actions** drop-down menu. The **Confirmation** message box appears.



Click Ok to reboot the device. The Reboot message box appears.
 Wait for the device reboot to complete before attempting to reconnect to the device.

# Updating Firmware Version

- 1. Click **Update Firmware Version** in the **Actions** drop-down menu.
- 2. In the **Update Firmware Version** dialog, click **Browse**.



- 3. Locate and select the desired firmware file, and then click **Open**. The selected firmware file name is displayed in the **Update Firmware Version** dialog.
- 4. Click **Upload**. A success message is displayed.

The device with new firmware can now be accessed.

# **EDID Management**

The EDID Management dialog displays available built-in EDID files and allows loading of a custom EDID file.

		Search:			
No	Name				
1	01 DM Default				
2	Consumer 1080P HBR				
3	Consumer 720P HBR				
4	Laptop 16x9 1080P 2CH				
5	Laptop 16x10 1920x1200 2CH				
6	Laptop 16x10 1280x800 2CH				
7	Laptop widescreen 2CH				
8	Consumer 1080P50 HBR				
9	Consumer 720P50 HBR				
10	Laptop 16x9 1080P50 2CH				
owing	1 to 10 of 13 entries	Previous	1	2	Nex

Built-in EDIDs are displayed in the **Default EDIDs** tab of the **EDID Management** dialog. The following EDIDs are available:

- 01 DM default
- Consumer 1080P HBR
- Consumer 720P HBR
- Laptop 16x9 1080P 2CH
- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Consumer 1080P50 HBR
- Consumer 720P50 HBR
- Laptop 16x9 1080P50 2CH
- DM Default 4k 30Hz 2CH

- DM Default 4k 60Hz 2CH
- DM Default 4k 60Hz HBR

### To Load a Custom EDID File

1. In the EDID Management dialog, click the **User EDIDs** tab and then click the **+ Add EDID** button.

EDID Manageme	nt				2
Default EDIDs	User EDIDs				
				+ Ad	d EDID
			Search:		
No	Name		Actions		
		No data available in table			
		No data avallable in table			

2. Click the **Browse** button in the EDID Upload dialog.

EDID Upload			3
Browse to select a file.			Browse
Browse	2	3 Progress	4 Complete
			Close

- 3. Navigate to the desired custom EDID file (.cedid extension), select the file, and then click **Open**.
- 4. Click **Upload**. A success message is displayed.
- 5. Click Close.

Once the EDID file is uploaded successfully the following occurs:

- Under the **Settings** tab, in the **Global EDID** section of the **Inputs** panel, the custom EDID file name is added to the **Send EDID to All Inputs** drop-down menu.
- Under the **Settings** tab, in the **Inputs** section of the **Inputs** panel, the custom EDID file name is added to each individual input **EDID** drop-down menu.

**NOTE:** Under the **Settings** tab, in the **Send EDID to ALL Inputs** drop-down menu, any custom EDIDs will be listed (in alphabetical order) after the last built-in EDID.

### To Delete a Custom EDID File

**NOTE:** Only custom EDID files that are not applied to an input can be deleted. Built-in EDID files cannot be deleted.

1. Click the **User EDIDs** tab and then click the trashcan button ( ) in the row of the custom EDID file to be deleted.

After a successful deletion, the custom EDID file is removed from the **Send EDID to Global Inputs** drop-down menu and also from each individual input **EDID** drop-down menu in the **Inputs** sections of the **Inputs** panel.

# **Downloading Configuration**

The Configuration Management enables device settings to be downloaded and use it for easy configuration of multiple devices.

1. Click Download Configuration in the Actions drop-down menu.

The configuration file (.tgz) is downloaded to the Downloads folder of the PC.

# Uploading Configuration

The Configuration Management enables to upload the device settings for easy configuration of the device.

1. Click Upload Configuration in the Actions drop-down menu.

Upload Configuration			20
Browse to select a file.			Browse
1	2	3	4
Browse	File Upload	Progress	Complete
			Close

- 2. Click the **Browse** button.
- 3. Navigate to the configuration file, select the file, and then click **Open**.
- 4. Click the Upload button. The Confirmation dialog appears.
- 5. Click **Ok** to reboot the device.

# Status

The **Status** tab is the first page displayed when starting the interface of the HD-MD421. It displays general information about the HD-MD421 (such as Model Name, Firmware Version, Serial Number, DM Lite Transmitters, and DM Lite Output Receiver), current network settings (such as Host Name and IP Address, etc.), and input and output ports' current status.

The Status tab can be accessed at any time by clicking the **Status** tab of the HD-MD421 interface.

✓ Status Settings ↔ Routing	
- General	
Model	HD-MD421
Firmware Version	1.1000.1003
Serial Number	000000000000
+ More Details	
DM Lite 5 Transmitter	
Connected	× No
DM Lite 6 Transmitter	
Connected	🗙 No
DM Lite Output Receiver	
Connected	× No
Input/Output Status	
Network	

Information displayed on the **Status** tab is organized into different sections.

# General

The **General** section displays the **Model**, **Firmware Version**, and **Serial Number** of the HD-MD421. Also, displays the connection status of the **DM Lite 5 Transmitter**, **DM Lite 6 Transmitter**, and **DM Lite Receiver**.

✓ General	
Model	HD-MD421
Firmware Version	1.1000.1003
Serial Number	000000000000
+ More Details	
DM Lite 5 Transmitter	
Connected	× No
DM Lite 6 Transmitter	
Connected	× No
DM Lite Output Receiver	
Connected	× No

Click + More Details to review additional information about the HD-MD421.

▼ General				
Model	HD-MD421			
Firmware Version	1.1000.1003			
Serial Number	00000000000000000			
– Less Details				
HD-MD421	1.1000.1003			
Bootloader	1.0000.0000			
DM Lite 5 Transmitter				
Connected	× No			
DM Lite 6 Transmitter				
Connected	× No			
DM Lite Output Receiver				
Connected	🗙 No			

# Input/Output Status

The **Input/Output Status** section displays information about available inputs and outputs of the HD-MD421.

### Inputs

✓ Input/Output Status							
	- Inputs						
	Name	Sync Detected	Resolution	Source HDCP			
	HDMI 1	No		Non-HDCP			
	HDMI 2	Νο		Non-HDCP			
	HDMI 3	Νο		Non-HDCP			
	HDMI 4	No		Non-HDCP			
	DM LITE 5	No		Non-HDCP			
	DM LITE 6	No		Non-HDCP			

- Name: Displays the name of the input source.
- Sync Detected: Displays Yes if connection is detected or No if connection is not detected.
- **Resolution**: Displays resolution when video with valid resolution is detected. If no video is detected, the reported resolution will be ---.
- Source HDCP: Reports HDCP 1.X or HDCP 2.X when the HDCP source is connected. Reports Non-HDCP when a non-HDCP source is connected and reports --- when no source is connected.

### Outputs

- Outputs				
Name	Sink Connected	Resolution	Sink HDCP Capability	Disabled by HDCP
HDMI	Yes	3840x2160p60	HDCP 2.2	No
DM LITE	No			No

- Name: Displays the name of the output source.
- Sink Connected: Displays Yes if connection is detected or No if connection is not detected.
- Resolution:
  - Displays --- when the video signal is not being transmitted. For example, no HDMI cable is connected.
  - Displays the detected resolution when a video signal is being transmitted. In the event an HDMI cable is connected to the display/downstream device, but the device is turned off, the last detected resolution will be displayed until a new video signal is received.
- Sink HDCP Capability: HDCP support 1.4 or 2.X.
- Disabled by HDCP: Yes or No.

### Network

The **Network** section displays network-related information about the HD-MD421, including the Hostname, IP Address, and MAC Address.

HD-MD421-001095
Yes
10.88.119.115
255.255.255.192
10.88.119.65
F8:22:85:00:10:95

Additionally, the following IPv4 addressing information is provided:

- Host Name
- DHCP Enabled
- IP Address
- Subnet Mask
- Default Gateway
- MAC Address

# Settings

The **Settings** tab enables you to configure the HD-MD421 settings. The Settings page can be accessed at any time by clicking the **Settings** tab of the HD-MD421 interface.

🗸 Status	🌣 Settings	↔ Routing
► System Set	up	
→ Inputs		
Mic Settings	S	
Outputs		

Information displayed on the **Settings** tab is organized into different sections.

# System Setup

The **System Setup** section displays information about the Firmware, Front Panel, Network, RS-232 Port Settings, and User Management.

#### Firmware

The Firmware section displays the Model, Firmware Version, and Serial Number of the HD-MD421.

Firmware	
Model	HD-MD421
Firmware Version	1.1000.1003
Serial Number	000000000000

### **Front Panel**

To prevent accidental changes to device settings, the Front Panel can be set to lock the front panel buttons on the HD-MD421. By default, the front panel is unlocked, allowing the front panel buttons to function. When the front panel is locked, pressing any of the buttons (with the exception of the **SETUP** button) has no effect. In addition, the LEDs on the front panel are enabled by default. When the front panel LEDs are disabled, the LEDs (except the **SETUP** LED) do not light.

Front Panel	
Front Panel Lock	
Front Panel LEDs	

- Front Panel Lock: To enable the front panel lock, move the Front Panel Lock slider to the right position. To disable the front panel lock, move the slider to the left position.
- Front Panel LEDs: To enable the front panel LEDs, move the Front Panel LEDs slider to the right position. To disable the front panel LEDs, move the slider to the left position.

### Network

The **Network** section displays network-related information about the HD-MD421.

- Network	
Host Name	HD-MD421-001095
C Revert	Real Save Change(s)
Adapter 1	
Dicr	
IP Address	10.88.119.115
Subnet Mask	255.255.255.192
Default Gateway	10.88.119.65
C Revert	H Save Change(s)

#### Adapter 1

Displays DHCP, IP Address, Subnet Mask, and Default Gateway of the HD-MD421.

### **Configure DHCP**

Set the **DHCP** slider to enabled (right) or disabled (left) to specify whether the IP address of the HD-MD421 is to be assigned by a DHCP (Dynamic Host Configuration Protocol) server.

- **Enabled**: When DHCP is enabled (default setting), the IP address of the HD-MD421 is automatically assigned by a DHCP server on the local area network (LAN) for a predetermined period of time.
- **Disabled**: When DHCP is disabled, manually enter information in the following fields:
  - IP Address: Enter a unique IP address for the HD-MD421.
  - **Subnet Mask**: Enter the subnet mask that is set on the network.
  - **Default Gateway**: Enter the IP address that is to be used as the network's gateway.

To save any new network entries, click **Save Change(s)** or click **Revert** to revert to the previous settings without saving.

### **RS-232** Port Settings

To adjust RS-232 communication parameters of HD-MD421, do the following:

= RS-232 Port Settings	
Baud Rate	9600 ~
Data Bits	8 ~
Parity	NONE
Stop Bits	1 ~
<i>♀</i> Revert	H Save Change(s)

1. Select the desired speed of data transmission (baud rate) from the **Baud Rate** drop-down menu.

Valid values are as follows:

- 300
- 600
- 1200
- 1800
- 2400
- 3600
- 4800
- 7200
- 9600 (Default value)
- 14400
- 19200
- 28800
- 38400
- 57600
- 115200
- 2. Select the number of data bits as **8** from the **Data Bits** drop-down menu.
- 3. Select the error checking type from the **Parity** drop-down menu. Available options are as follows:
  - NONE (default)
  - Odd
  - Even
- 4. Select the number of stop bits (1 or 2) that will be used from the **Stop Bits** drop-down menu.
- 5. Click the **Save Change(s)** button to save your modifications or click **Revert** to revert to the previous settings without saving.

### User Management

The User Management section enables to change the username and password of an existing user.

– User Management	
Username	
Password	
New Username	
New Password	
Confirm New Password	
	Rave Change(s)

- 1. Enter the username in the **Username** field.
- 2. Enter the password in the **Password** field.
- 3. Enter the new username in the **New Username** field. A valid user name can consist of alphanumeric characters (letters a-z, A-Z, numbers 0-9) and the underscore "\_" character.
- 4. Enter a new password in the **New Password** field; re-enter the same password in the **Confirm New Password** field.
- 5. Click **Save Change(s)** to save the changes.

# Inputs

The **Inputs** section can be used to configure the HDMI and DM LITE input settings of the HD-MD421 by renaming one or more inputs, changing and applying EDID to specific inputs or to all inputs at once (Global EDID), and enabling or disabling HDCP (High-bandwidth Digital Content Protection) on individual inputs.

- Global Settings						
		Priority Routing				
- Global EDID						
	Send E	DID to All Inputs Copy H	DMI 1 Output	~		
		Ap	ply CEDID			
– Inputs	constructed a	★ App	ply CEDID		Delavite	Ch.
- Inputs	Sync Detected	EDID DM Default Ak Kill+ 2CH	Resolution	HDCP Receiver Capability	Priority	Sta
– Inputs Name HDMI 1 HDMI 2	Sync Detected No	EDID DM Default 4k 60Hz 2CH \ DM Default 4k 60Hz 2CH \	Ply CEDID Resolution 	HDCP Receiver Capability Auto ~	Priority	Sta
- Inputs	Sync Detected No No	EDID DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH	Resolution	HDCP Receiver Capability Auto Auto	Priority           1 ~           1 ~           1 ~	Sta
- Inputs Name HDMI 1 HDMI 2 HDMI 3 HDMI 4	Sync Detected No No No No	EDID DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH	Resolution CEDID Resolution CEDID	HDCP Receiver Capability Auto ~ Auto ~ Auto ~	Priority           1 ~           1 ~           1 ~           1 ~           1 ~	Sta
- Inputs HDMI 1 HDMI 2 HDMI 3 HDMI 4 DM LITE 5	Sync Detected No No No No No No	EDID DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH	Resolution	HDCP Receiver Capability Auto Auto Auto Auto Auto	Priority           1 ~           1 ~           1 ~           1 ~           1 ~           1 ~	Sta

### **Global EDID**

In the **Send EDID to All Inputs** drop-down menu, select a built-in EDID file from a list of built-in predefined EDID files.

- Copy HDMI 1 Output
- Copy DM Lite 1 Output
- Copy DM Lite 2 Output
- 01 DM Default
- Consumer 1080P HBR
- Consumer 720P HBR
- Laptop 16x9 1080P 2CH
- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Consumer 1080P50 HBR
- Consumer 720P50 HBR
- Laptop 16x9 1080P50 2CH
- DM Default 4k 30Hz 2CH

- DM Default 4k 60Hz 2CH
- DM Default 4k 60Hz HBR

The selected EDID is automatically sent to all inputs and appears in the EDID drop-down menu in the Inputs section of the page.

### Inputs

The **Inputs** section displays information and allows settings to be modified for available inputs.

7410							
– Global Settings							
		Priority Routing					
– Global EDID							
	Send E	DID to All Inputs	Copy HDN	/II 1 Output	~		
			Apply	/ CEDID			
- Inputs							
Name	Sync Detected	EDID		Resolution	HDCP Receiver Capability	Priority	
HDMI 1	No	DM Default 4k 60Hz 2CH	+ v				Statu
					Auto 🗸	1 🗸	Statu
HDMI 2	No	DM Default 4k 60Hz 2CH	+ ~		Auto ~	1 ~	Statu 1
HDMI 2 HDMI 3	No	DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH	+ ~ + ~		Auto ~ Auto ~ Auto ~	1 ~ 1 ~ 1 ~	Statu 1
HDMI 2 HDMI 3 HDMI 4	No No No	DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH			Auto     ~       Auto     ~       Auto     ~       Auto     ~	1 × 1 × 1 × 1 ×	Statu () () () () () () () () () ()
HDMI 2 HDMI 3 HDMI 4 DM LITE 5	No No No No	DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH		  	Auto     ~       Auto     ~       Auto     ~       Auto     ~       Auto     ~	1 × 1 × 1 × 1 × 1 ×	Statu (1) (1) (1) (1) (1) (1) (1) (1)
HDMI 2 HDMI 3 HDMI 4 DM LITE 5 DM LITE 6	No No No No No	DM Default 4k 60Hz 2CH DM Default 4k 60Hz 2CH		  	Auto     ~       Auto     ~	1 × 1 × 1 × 1 × 1 ×	Statu (1) (1) (1) (1) (1) (1)

- **Name**: Displays the name of the input. To modify the name of the input, enter the new name in this field.
- Sync Detected: Indicates whether a valid video signal is detected at the corresponding input.
- **EDID**: Displays the selected predefined EDID file. To modify the existing setting, select an EDID from the **EDID** drop-down menu.
- **Resolution:** Displays resolution when video with valid resolution is detected. If no video is detected, the reported resolution will be ---.
- HDCP Receiver Capability: Specifies whether HDCP Support for this input will be Disabled, Auto, HDCP 1.X or HDCP 2.X. To modify the existing setting, select the desired option from the HDCP Receiver Capability drop-down menu.
- **Priority**: To enable the Priority Routing, move the **Priority Routing** slider to the right position. To disable, it again, move the slider to the left position. When Priority Routing is enabled, specifies the priority level of each input.

**NOTE:** For Priority Routing to work, make sure that the Auto Routing is enabled.

Priority levels for automatic routing of an input range from Priority 1 (highest priority) to Priority 6 (lowest priority). Automatic routing of an input occurs according to the routing priority level and the detection of a source at the input. Routing of an input remains until the input is disconnected. If the input that is being routed is disconnected, automatic routing switches to another input based on the routing priority level and the detection of a source at the input. If Priority 1 is set for all inputs, the last connected input is automatically routed.

• **Status**: Click **1** to view the Input Signal details including Sync Detected, Resolution, and Source HDCP. Click **+ More Details** to review additional information about the Input Signal.

Click **Save Change(s)** to save the changes.

Click **Revert** to revert to the previous settings without saving.

### Mic Settings

✓ Mic Settings		
- Mic 1		
	Phantom Power	

To enable the phantom power of the microphone input, move the **Phantom Power** slider to the right position. To disable the phantom power, move the slider to the left position.

### Outputs

The **Outputs** section can be used to configure the HDMI 1, DM Lite 1, and Audio output settings of the HD-MD421.

✓ Outputs			
- Output Settings			
	Scaler		
	Resolution	Follow HDMI	
HDMI 1			
	Disable Output		
	Blank Video		
	Name	HDMI	H Save Change(s)
	HDCP Transmitter Mode	Auto 🗸	
DM Lite 1			
	Disable Output		
	Blank Video		
	Name	" OnMouseOver=alert()//n	H Save Change(s)
	HDCP Transmitter Mode	Auto 🗸	

The Outputs section displays information and allows settings to be modified for available outputs.

### HDMI 1 and DM Lite 1

• Scaler: To enable the 4K scaler, move the Scaler slider to the right. To disable the scaler, move the slider to the left.

The mirrored HDMI 1 and DM Lite 1 output share a single 4K scaler. Input resolutions are automatically scaled to match the native resolution of the display device, resulting in optimal image quality. For applications requiring comprehensive EDID management, the web interface can be used to ensure that every input is displayed at its optimal resolution and format. Input resolutions up to 4K60 4:2:0 are supported.

- **Resolution**: When the **Scaler** is enabled, select the resolution from the **Resolution** drop-down menu.
- Valid values are as follows:
  - Follow HDMI (Default value)
  - Follow DM Lite
  - 1280x720@50
  - 1280x720@60
  - 1920x1080@24
  - · 1920x1080@25
  - · 1920x1080@30
  - · 1920x1080@50
  - · 1920x1080@60
  - 3840x2160@24
  - 3840x2160@25
  - · 3840x2160@30
  - · 3840x2160@50
  - 3840x2160@60
  - 4096x2160@24
  - 4096x2160@25
  - 4096x2160@30
  - 4096x2160@50
  - · 4096x2160@60
- **Disable Output**: Move the **Disable Output** slider to the right to disable the audio and video output. To enable the audio and video output, move the slider to the left.
- Blank Video: Move the Blank Video slider to the right to disable video. To enable video, move the slider to the left.

**NOTE:** The Blank Video option for both HDMI 1 and DM Lite 1 is interdependent. For example, if the Blank Video is enabled for HDMI 1, it is automatically enabled for the DM Lite 1.

- Name: Displays the name of the output source. To modify the name, enter the new name in this field. Click **Save Change(s)** to save the new name.
- HDCP Transmitter Mode: Select the desired option from the HDCP Transmitter Mode dropdown menu to set the HDCP Mode as follows:
  - Auto (Default): When non-HDCP content is routed, the content will pass through and not be authenticated until HDCP content is routed. When HDCP content is routed, the scaler will latch onto the highest HDCP level. The scaler will not attempt to re-authenticate unless hot-plugged or the HDCP support level changes.
  - **Follow Input**: Authenticates each time the input sync changes its state. The output will authenticate to the level reported at the Input.
  - Always: Authenticates to and keeps synced with the highest level HDCP.
  - **Never**: The HDMI output will blank if the input is HDCP encrypted.

### **Connected Display**

The **Connected Display** section displays read-only information that identifies the displays connected to the HDMI 1 and DM Lite 1 outputs (if any).

- Connected Display		
HDMI 1		
	Sink Connected	✓ Yes
	HDCP Capability	HDCP 2.2
	Manufacturer	GSM
	Name	LG TV
	Serial Number	16843009
		H Save EDID
DM Lite 1		
	Sink Connected	× No
	HDCP Capability	
	Manufacturer	
	Name	
	Serial Number	
		H Save EDID

The **Manufacturer**, **Name**, and **Serial Number** fields display additional information about the connected display's manufacturer, model and serial number, respectively.

Click the **Save CEDID** button to save the CEDID file of the connected output. The saved CEDID file can be loaded later, if desired.

### **Output Signal**

The **Output Signal** section displays read-only information about the HDMI 1 and DM Lite 1 output resolution of the device and whether the device is transmitting or not.

– Output Signal		
HDMI 1		
	Transmitting	✔ Yes
	Resolution	3840x2160p60
	Disabled By HDCP	× No
DM Lite 1		
	Transmitting	× No
	Resolution	
	Disabled By HDCP	× No

- Transmitting: Yes or No.
- **Resolution**: Reports the output resolution of the device (if transmitting).
- Disabled By HDCP: Yes or No.

### Audio Settings

- Audio Settings				
		Audio M Mixer Line In	Iode   Mixer  Bypass  nput Line In 1	~
	Mixer	Settings		
	Level	Selected Source	Mic	Line 1
	Mute			
HDMI Mute				
DM Lite Mute				

The Audio Settings section enables configuration of the audio settings of the HD-MD421.

- Audio Mode: Select one of the following from the Audio Mode radio buttons.
  - **Bypass**: Select **Bypass** to disable the **Mixer Settings**. The audio from the routed HDMI source will be passed directly to the output.
  - **Mixer**: Select **Mixer** to enable the **Mixer Settings**. The **Mixer Settings** provides the ability to mix selected source, line, and mic audio together.

If **Mixer** is selected:

- Select the mixer line input from the **Mixer Line Input** drop-down menu. Values are **Line In 1**, **Line In 2**, and **Line In 3**.
- In the **Mixer Settings** panel, increase or decrease the level of the selected source, mic, and selected line input, by doing one of the following:
  - Move the slider up or down.
  - Enter a value in the corresponding text field below the slider.
  - Click the arrows
- To mute the selected source, mic, or selected line input, move the respective **Mute** slider to the right. To unmute, move the respective slider to the left.
- HDMI Mute: To mute the HDMI output audio, move the HDMI Mute slider to the right. To unmute the HDMI output audio, move the slider to the left.

• **DM Lite Mute**: To mute the DM Lite output audio, move the **DM Lite Mute** slider to the right. To unmute the DM Lite output audio, move the slider to the left.

### AUX

The AUX section enables configuration of the AUX of the HD-MD421.

Aux	
Volume	0 dB
Delay	0 milliseconds
AUX Out Mute	

- Volume: To set the volume, do one of the following:
  - Move the **Volume** slider to the right to increase or to the left to decrease the AUX volume.
  - $\circ~$  Click the dB arrows to increase or decrease the AUX volume.
  - Manually enter a value in the **Volume** field. Values range from -80 dB to 20 dB, adjustable in 1 dB increments.
- Delay: To set the delay, do one of the following:
  - Move the **Delay** slider to the right to increase or to the left to decrease the delay.
  - Click the **milliseconds** arrows to increase or decrease the delay.
  - Manually enter a value in the **Delay** field. Values range from 0 milliseconds to 150 milliseconds, adjustable in 1 millisecond increments.
- **AUX Out Mute**: To mute the AUX output audio, move the **Mute** slider to the right. To unmute the AUX output audio, move the slider to the left.

### **Automatic Display Power**

The Automatic Display Power section enables to configure the display power settings.

= Automatic Display Power	
Automatic Power	
Command Interface	None
Output Timeout	5 seconds 🗸
Turn Off HDMI Output	
Turn Off DM Lite Output	
C Revert	Rave Change(s)

- Automatic Power: To enable the automatic power, move the Automatic Power slider to the right position. To disable the automatic power, move the slider to the left position.
- Command Interface: Select between None or RS-232 from the Command Interface drop-down menu.
- Output Timeout: Select the output timeout value from the Output Timeout drop-down menu. Values are 5 seconds, 10 seconds, 15 seconds, 30 seconds, 60 seconds, 90 seconds, or Custom seconds. If Custom is selected then enter the value in seconds in the Output Timeout field.
- **Turn off HDMI Output**: To turn off the HDMI output, move the **Turn off HDMI Output** slider to the right. To display the HDMI output, move the slider to the left.
- **Turn off DM Lite Output**: To turn off the DM Lite output, move the **Turn off DM Lite Output** slider to the right. To display the DM Lite output, move the slider to the left.

Click **Save Change(s)** to save the changes.

Click **Revert** to revert to the previous settings without saving.

# Routing

The Routing page can be accessed at any time by clicking the Routing tab of the HD-MD421 interface.

The Routing section can be used to establish routing between inputs and outputs.

✓ Status						
		Auto Route				
		Priority				
	Inputs(6)					
	HDMI 1	HDMI 2	HDMI 3	HDMI 4	DM Lite 5	DM Lite 6
0						
HDMI 1/DM Lite 1		<b>•</b> ) 🖵				
Legend Inputs Outputs 📢 Audio 🛄 Video						

Move the **Auto Route** slider to the right to enable or to the left to disable the automatic routing of video inputs. When automatic input routing is enabled, the HD-MD421 automatically routes the last connected input.

Move the **Priority** slider to the right to enable or to the left to disable the priority routing of video inputs. For detailed information about the priority functionality, see Inputs (on page 18).

**NOTE:** For Priority routing to work, make sure that the Auto Routing is enabled.

To route an input to the output, click the box under the name of the corresponding input. The input is routed to the output.

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**Crestron Electronics, Inc.** 15 Volvo Drive, Rockleigh, NJ 07647 Tel: 888.CRESTRON Fax: 201.767.7656 www.crestron.com Web Interface Guide — Doc. 8955A

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