

HD-RX-4K-x10-C-E(-SW4)

4K Multiformat AV Switch and Receiver

Web Interface Configuration 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: M1845002

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Introduction

The HD-RX-4K-x10-C-E(-SW4) is a multiformat AV switch and receiver which provides enhanced remote HDMI video source switching and audio presentation capabilities in areas such as classrooms and conference rooms. The HD-RX-4K-x10-C-E(-SW4) has two HDMI® inputs and one scaling HDMI output.

In addition, the HD-RX-4K-410-C-E(-SW4) provides two DM Lite® inputs and the HD-RX-4K-510-C-E(-SW4) provides three DM Lite inputs for connection to DM Lite transmitters.

The HD-RX-4K-x10-C-E-SW4 models include a 4-port Gigabit Ethernet switch. Two of the ports (Ports 3 and 4) are PoE+ power sourcing equipment ports that can be connected to two PoE+ powered devices simultaneously.

Web Interface

The web interface of the HD-RX-4K-x10-C-E(-SW4) enables you to view device status information and configure routing, input, output, network, and device settings.

Access the Web Interface

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

- p	
OPERATING SYSTEM	SUPPORTED WEB BROWSERS
Windows® operating system	Chrome™ web browser, version 31 and later
	Firefox® web browser, version 31 and later
	Internet Explorer® web browser, version 11 and later
	Microsoft Edge® web browser
macOS® 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

To access the web interface, do either of the following:

- Open the web interface directly in a web browser.
- Open a web browser from within the Crestron Toolbox™ application.

Access Web Interface with a Web Browser

1. Enter the IP address of the HD-RX-4K-x10-C-E(-SW4) into a web browser.

NOTE: To obtain the IP address, press the **Setup** button on the HD-RX-4K-x10-C-E(-SW4) to display the IP address on the HDMI output. The IP address is displayed for 20 seconds.

2. Enter your credentials in the **Device Administration** dialog. The user name and password are case sensitive. The default user name is *admin*, and the default password is *admin*.

CRESTR	ON,	
Г		
	Device Administration	
	Username	
	Password	
	م Sign In	
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NOTE: For enhanced security, it is recommended that the default password be changed.

3. Click Sign In.

Access Web Interface with Crestron Toolbox Application

To access the web interface by opening a web browser within the Crestron Toolbox application, do the following:

- 1. Open the Crestron Toolbox application.
- From the Tools menu, select Device Discovery Tool. You can also access the Device Discovery Tool by clicking the Device Discovery Tool button in the Crestron Toolbox toolbar. The HD-RX-4K-x10-C-E(-SW4) is discovered and is listed in the device list on the left side of the screen. The associated host name, IP address, and firmware version are also displayed.

NOTE: If there is security software running on the computer, a security alert might be displayed when the Crestron Toolbox application attempts to connect to the network. Make sure to allow the connection so that the Device Discovery Tool can be used.

- 3. In the Device Discovery Tool list, double-click the HD-RX-4K-x10-C-E(-SW4) device.
- 4. Enter your credentials in the Authentication dialog that opens, and then click Log In.
- 5. Click **Web Configuration** in the Configuration page displayed on the left side of the Device Discovery Tool.

Actions Menu

The Actions drop-down menu is displayed at the top right of each page and provides quick access to common device functionality of the HD-RX-4K-x10-C-E(-SW4), such as:

- Rebooting the device
- Restoring factory default settings
- EDID management
- Performing firmware upgrades
- Downloading logs

The **Actions** drop-down menu can be accessed at any time by clicking the drop-down arrow of the **Actions** drop-down menu.

CRESTRON		? 🕥
STATUS		
ROUTING		 Actions
INPUTS	General	() Reboot
HDMI 1		3 Restore
HDMI 2	Input/Output Status	C EDID Management
DM Lite 3	Network	Sirmware Upgrade
DM Lite 4	Control System	C Download Logs
DM Lite 5	Control System	
AUDIO	©2019 Crestron Electronics, Inc.	Privacy Statement
OUTPUT		
NETWORK		
DEVICE		

Rebooting the Device

Certain changes to the settings may require that the HD-RX-4K-x10-C-E(-SW4) be rebooted to take effect. To reboot the device, do the following:

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



2. Click **Yes** to reboot the device. The **Reboot** message box appears.

Wait for the device reboot to complete before attempting to reconnect to the device.

Restoring Factory Default Settings

1. Click **Restore** in the **Actions** drop-down menu to restore the settings of the HD-RX-4K-x10-C-E(-SW4) to factory defaults.

NOTE: When settings are restored, all settings, including the network settings, will revert to the factory default. If a static IP address is set, restoring the device to factory default settings will revert the IP address to the default DHCP mode.

Confirmation	×
Are you sure you would like to restore the device to factory defaults? Ethernet settings will be lost.	
✓ Yes 🗶 No	

2. Click **Yes** in the **Confirmation** dialog to restore the HD-RX-4K-x10-C-E(-SW4) to factory default settings. Click **No** to cancel the restore operation.

A dialog is displayed again, indicating that the Restore process was successful and that the device rebooted.

EDID Management

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

Def	ault List 🔍 User List		
No	Name	Actions	
1	01 DM default		
2	Laptop 16x9 1080P60 2CH		
3	Laptop 16x10 1920x1200 2CH		
4	Laptop 16x10 1280x800 2CH		
5	Laptop widescreen 2CH		
€.			

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

- 01 DM Default
- Laptop 16x9 1080P60 2CH

- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Laptop 16x9 1080P50 2CH
- DM default 4k 30Hz 2CH
- DM Default VGA
- DM Default 4k 60Hz 2CH

Loading a Custom EDID File

1. In the **EDID Management** dialog, click the **User List** tab and then click the **+** button in any available row of the table.

≣ Default List	🏶 User List									
No Name						A	ctior	าร		
1							+	Û		
2							+	Û		
3							+	Û		
4							+	Û		
5							+	Û	1	
•										Þ
		M	 1	2	3	4	5	₩	M	

2. Click + Browse in the Load CEDID File dialog:

Load CEDID File			×
Browse	2 File Upload Progress	3 Complete	
Load CEDID File:	+ Browse		

3. In **Windows Explorer**, navigate to the desired custom EDID file (.cedid extension), select the file, and then click **Open**.

The name of the selected custom EDID file is displayed below the progress bar.

Load CEDID File			×
1 Browse	2 File Upload Progress	3 Complete	I
🕹 Send EDID			
MyCustomEDID.	cedid 661 Bytes		

- 4. Click **Send EDID**. A prompt appears asking for confirmation that the EDID file be uploaded to the input device.
- 5. Click OK.

After the EDID file is sent successfully, the following occurs:

- In the Global EDID section of the INPUTS page, the custom EDID file name is added to the Send EDID to All inputs drop-down list.
- In the **Global Inputs** section of the **INPUTS** page, the custom EDID file name is added to each individual input **EDID** drop-down list.

NOTE: Any custom EDIDs will be listed (in alphabetical order) after the last built-in EDID.

Deleting a Custom EDID File

NOTE: Only custom EDID files can be deleted. Built-in EDID files cannot be deleted.

To delete a custom EDID file:

- 1. Click the **User List** tab and then click the trashcan button in the row of the custom EDID file that will be deleted.
- 2. Click **Yes** in the **Confirmation** dialog to confirm the delete operation. Click **No** to cancel the operation.

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

When a custom EDID file is deleted, the EDID reverts to the default EDID. The default EDID for an HDMI input is DM Default EDID. The default EDID for the VGA input is DM Default VGA EDID.

Upgrading Firmware

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

Firmware Upgrade			×
1 Browse	2 File Upload	3 Upgrade Progress	4 Complete
Select File +	Browse		

- 3. Locate and select the desired firmware file, and then click **Open**. The selected firmware file name is displayed in the **Firmware Upgrade** dialog.
- 4. Click **Load** and wait for the progress bar to complete and for the **OK** button in the message to become clickable.
- 5. Click **OK**. The device with new firmware can now be accessed.

Downloading Device Logs

1. Click **Download Logs** in the **Actions** drop-down menu.

Download Logs				×
2019082920.log	•	±	Download	

2. Select the desired log file from the combo box and click **Download**. The log file (.log) is downloaded to the **Downloads** folder of the PC or mobile device.

Status

The Status page is the first page displayed when starting the web interface of the HD-RX-4K-x10-C-E(-SW4). It displays general information about the HD-RX-4K-x10-C-E(-SW4) (such as model name, serial number, and firmware version), current network settings (such as host name and IP address, etc.), as well as information about the connection to the control system.

The Status page can be accessed at any time by clicking the **STATUS** tab in the navigation bar of the web interface.



Information displayed on the Status page is organized into different sections.

General

General: Displays the **Model**, **Firmware Version**, and **Serial Number** of the HD-RX-4K-x10-C-E(-SW4).

▼ General	
Model	HD-RX-4K-510-C-E
Firmware Version	1.0.4251.11167
Serial Number	1234567890
+ Show more	
DM Lite 3 Transmitter	
Connected	√ Yes
Model	HD-TXC-101-C-E
Firmware Version	N/A
Serial Number	N/A
DM Lite 4 Transmitter	
Connected	x No
Model	
Firmware Version	
Serial Number	
DM Lite 5 Transmitter	
Connected	√ Yes
Model	HD-TX-201-C-2G-E-B-T
Firmware Version	2.0.1.2246
Serial Number	17944208

For each DM Lite[®] input, the following data is reported:

• DM Lite "Input Name" Transmitter: "Input Name" matches the input name defined on the INPUTS page or the corresponding DM Lite input page. For example, the default name for HD-RX-4K-x10-C-E(-SW4) Input 2 is "DM Lite 2", the name displayed is: "DM Lite 2 Transmitter".

If the input name was changed programmatically or through the **INPUT** page or the corresponding DM Lite input page of the web interface, the name will get updated in real time. For example, if the name is changed to "DML 2" the label will read: "DML 2 Transmitter".

- **Connected: Yes**, if a DM Lite transmitter is connected or **No**, if DM Lite transmitter is not detected
- **Model:** Model of the connected DM Lite transmitter, for example, HD-TX-301-C-E. If a DM Lite transmitter is not detected, no information is displayed.
- **Firmware version:** Firmware version as reported from the connected DM Lite transmitter. "N/A" will be displayed in case that the transmitter's firmware version is not available (for HD-TX-101 transmitters). If a DM Lite transmitter is not detected, no information is displayed.
- Serial number: Serial number as reported from the connected DM Lite transmitter. "N/A" will be displayed in case that the transmitter's serial number is not available (for HD-TX-101 transmitters). If a DM Lite transmitter is not detected, no information is displayed.

- Show less	
HD-RX-4K-510-C-E	1.0.4251.11167
User Application	1.0.4251.23001
OS	Linux 4.1.35
MCU	0.0.167
BOOTLOADER	0.5

Click + Show More to review additional information about the HD-RX-4K-x10-C-E(-SW4):

Input/Output Status

The **Input/Output Status** section displays information about available inputs and outputs of HD-RX-4K-x10-C-E(-SW4).

▼ Input/Output Status	
HDMI 1	
Sync Detected	√ Yes
Resolution	3840x2160@24
Source HDCP	Active
HDMI 2	
Sync Detected	√Yes
Resolution	1920×1080@60
Source HDCP	Inactive
DM Lite 3	
Sync Detected	√ Yes
Resolution	3840x2160@24
Source HDCP	Active
DM Lite 4	
Sync Detected	x No
Resolution	0x0@0
Source HDCP	Inactive
DM Lite 5	
Sync Detected	√Yes
Resolution	3840x2160@24
Source HDCP	Inactive
HDMI Output	
Sink Connected	√Yes
Resolution	0×0@0
Disabled by HDCP	x No

Input Name

- Sync detected: Yes, if connection is detected or No, if connection is not detected.
- **Resolution:** Resolution when video with valid resolution is detected. If no video is detected, the reported resolution will be **0x0@0**.
- **Source HDCP:** Reports **Active** when HDCP source is connected. Reports **Inactive** when non-HDCP source or no source is connected.

Output

- Sink Connected: Yes, if connection is detected or No, if connection is not detected.
- Resolution:
 - Displays **0x0@0** when the video signal is not being transmitted. For example, no HDMI cable is connected.
 - Displays detected resolution when 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.
- Disabled by HDCP: Yes or No.

NOTE: As the sources, transmitters and sink are connected or disconnected, information is updated in real time without requiring a page refresh.

Network

The Network section displays network-related information about the HD-RX-4K-x10-C-E(-SW4), including the **Hostname**, **Domainname**, and **DNS Servers**.

▼ Network	
Hostname	HD-RX-4K-510-C-E-C4C138FFFF29
Domainname	CRESTRON.CRESTRON.COM
DNS Servers	192.168.200.133(DHCP),192.168.200.134(DHCP)
Adapter 1	
DHCP Enabled	Yes
IP Address	172.30.160.81
Subnet Mask	255.255.240.0
Default Gateway	172.30.160.1
Link Active	√Yes
MAC Address	C4:C1:38:FF:FF:29
Link Active MAC Address	√Yes C4:C1:38:FF:FF:29

NOTE: By default the host name of HD-RX-4K-x10-C-E(-SW4) consists of the model name followed by the MAC address of the device. For example, HD-RX-4K-510-C-E-C4C138FFFF29.

Additionally, the following IPv4 addressing information is provided:

- DHCP Enabled: (Yes or No)
- IP Address

- Subnet Mask
- Default Gateway
- Link Active: (Yes or No)
- MAC Address

Control System

The Control System section shows connection information, consisting of the following:

▼ Control System	
IPID	99
IP Address/Hostname	172.30.160.245
Server Port	41794
Status	ONLINE

IP ID: Reports the currently used IP ID of the HD-RX-4K-x10-C-E(-SW4).

IP Address/Hostname: IP address of the control system.

Server Port: The default port is set to 41794.

Status: OFFLINE or ONLINE.

Routing

The **Routing** page can be used to automatically or manually route input(s) on the receiver (local inputs) or any DM Lite transmitter input (remote inputs) to the HDMI output. The default input and output names also can be changed if desired.

The **Routing** page can be accessed at any time by clicking the **ROUTING** tab in the navigation bar of the web interface.

CRESTRON					?
STATUS					Actions -
ROUTING					 Actions
INPUTS	▼ Routing				
HDMI 1					
HDMI 2		Auto Route	Enabled		
DM Lite 3					
DM Lite 4					
DM Lite 5					
AUDIO		Local Inputs	HDMI Output	DM Lite Transmitter	
OUTPUT				Input Select	
NETWORK		0: Clear Route			
DEVICE		1: HDMI 1	0		
		2: HDMI 2			
		3: DM Lite 3		HDMI	-
		4: DM Lite 4			r
		5: DM Lite 5		HDMI	•
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The default name of the HDMI output of the HD-RX-4K-x10-C-E(-SW4) is **HDMI Output**. The default names of the local HDMI inputs on the receiver are **HDMI1** and **HDMI2**. The default names of the remote inputs range from **DM Lite 3** to **DM Lite 4** for the HD-RX-4K-410-C-E(-SW4) or **DM Lite 5** for the HD-RX-4K-510-C-E(-SW4).

Move the **Auto Route** slider to **Enabled** or **Disabled** to specify whether automatic input routing of inputs will be enabled or disabled. When automatic input routing is enabled and Priority Routing is disabled, the HD-RX-4K-x10-C-E(-SW4) will do the following:

- Automatically route the last connected input.
- Remember the order in which sources were connected to the inputs; the device will update its connection order status if a non-routed source is disconnected.

NOTE: Auto Route mode can be set from the front panel, SIMPL program, or the web configuration interfaces of the HD-RX-4K-x10-C-E(-SW4), as well as the transmitter.

To manually route a local input to the output, select the radio button next to the name of the corresponding input. The input is routed to the output.

When routing DM Lite inputs, select the desired DM Lite transmitter input from the corresponding drop-down list. If the DM Lite transmitter is not connected, the drop-down selection menu is grayed out and displays **Not Connected**.

Click **Clear Route** to clear the route.

Inputs

The Inputs page can be used to configure the settings of the HD-RX-4K-x10-C-E(-SW4) HDMI inputs 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.

The Inputs page can be accessed at any time by clicking the **INPUTS** tab in the navigation bar of the web interface.

CRESTRON								? 🕚
STATUS							_	
ROUTING								Actions -
INPUTS	 Global Settings 							
HDMI 1								
DM Lite 2			Priority	Routing				
OUTPUT								
NETWORK	 Global EDID 							
DEVICE					01 DM defeult	-	A Anthropa	
			Send EDID to	aii inputs	01 DM default	· ·	Apply CEL	
	▼ Global Inputs							
		Sync	Name		EDID	HDCP Receiver Capability	Priority	Actions
	1	x No	HDMI 1	DM def	ault 4k 60Hz 2 💌	Auto 💌	1 *	6
	2	x No	DM Lite 2	DM de	efault 4k 60Hz 2i 👻	Auto 👻		C (
	🖺 Sa	ve All						
	©2020 Crestron Electronics,	Inc.						Privacy Statement

Global EDID

Apply/Send Global EDID

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

- Copy Output will apply the EDID of the display attached to the HDMI Output to the selected input
- 01 DM Default
- Laptop 16x9 1080p60 2CH
- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Laptop 16x9 1080p50 2CH
- DM default 4k 30Hz 2CH
- DM Default VGA
- DM Default 4k 60Hz 2CH

Click Apply CEDID.

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

Global Inputs

The Global Inputs section displays information and enables settings to be modified for available local and transmitter inputs. DM Lite inputs are listed below the detected transmitter model name.

	Sync	Name	EDID	HDCP Receiver Capab	ility	Priority		Actions
1	x No	HDMI 1	DM default 4k 60Hz 2C 💌	Auto	•	1	•	80
2	x No	DM Lite 2	DM default 4k 60Hz 2C 💌	Auto	•			C 🛛
HD-TX-301-C-E	nput(s)							
2.1	x No	HDMI 1	01 DM default 🔹	HDCP 1.4	-	2	-	C B
2.2	x No	HDMI 2	DM default 4k 30Hz 2C 🔻	HDCP 1.4	-	3	*	C
2.3	x No	VGA 3	DM default VGA 🛛 👻			4	*	B 5

The following information about the HDMI inputs and DM Lite inputs can be viewed and configured in this section of the Inputs page.

- Input Number (read-only): Indicates the input number. Input numbers of transmitter inputs are shown in the format "X.Y", where X is the input number of the corresponding DM Lite input and Y is the transmitter input number.
- Sync (read-only): Indicates whether a valid video signal is detected at the corresponding input.

Yes indicates that a source is detected.

No indicates that a source is not detected.

- **Name:** Displays the name of the local or transmitter input. To modify the name of the input, enter the new name in this field.
- **EDID:** Displays the selected pre-defined EDID file. To modify the existing setting, select an EDID from the drop-down list.
- HDCP Receiver Capability: Specifies whether HDCP Support for this input will be Disabled, Auto, HDCP 1.4, or HDCP 2.2. To modify the existing setting, select the desired option from the drop-down list.

NOTE: VGA inputs and HD-TX(C)-101-C(-1G)-E transmitter HDMI inputs do not support setting HDCP receiver capability. As a result, the HDCP Receiver Capability drop-down box will not be displayed for those inputs.

• **Priority:** When Priority Routing is enabled, specifies the priority level of each input.

Priority levels for automatic routing of an input range from Priority 1 (highest priority) to Priority 4 (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.

NOTE: Priority can only be changed when Priority Routing is enabled.

Click **Save** in the **Actions** column of a specific input to save changes made in the fields of that HDMI Input.

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

Click **Save All** to save all changes.

HDMI Inputs

The HDMI Input 1 or HDMI Input 2 page can be accessed at any time by clicking the arrow next to the INPUTS tab and then clicking HDMI INPUT 1 or HDMI INPUT 2 in the navigation bar of the web interface.

CRESTRON				? 🎱
STATUS				Actions -
ROUTING				Actions
INPUTS	▼ General Settings			
HDMI 1				
HDMI 2		Name	HDMI 1	
DM Lite 3		HDCP Receiver Capability	Auto	*
DM Lite 4			🖺 Set	
DM Lite 5				
AUDIO	▼ EDID			
OUTPUT		Colort	DM default 4/r 60Hz 2CH	_
DDACE		Select	DM default 4k 60H2 2CH	·
DEVICE			Apply CEDID	
	▼ Input Signals			
		Sync Detected	√Yes	
		Resolutions	3840x2160@24	
		Source HDCP	Active	
	- Less Details			
		Interlaced	x No	
		Horizontal Resolution	3840	
		Vertical Resolution	2160	
		Frames Per Second	24	
		Aspect Ratio	16:9	
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General Settings

Modify the name of the HDMI input by editing the existing name or entering a new name in the **Name** field.

Use the **HDCP Receiver Capability** drop-down list to specify whether the HDCP Support capability for this input will be **Disabled**, **Auto**, **HDCP 1.4**, or **HDCP 2.2**.

Click the **Set** button to save any changes made in the **Name** or **HDCP Receiver Capability** fields. Changes take effect immediately and the new stream routing name is reflected on the **Inputs** page.

EDID

The default EDID for local HDMI and DM Lite inputs is DM Default 4k 60Hz 2CH. The default EDIDs for transmitter inputs are as follows:

- HDMI Inputs: 01 DM Default
- VGA inputs: DM Default VGA

1. In the **Select** drop-down list, select an EDID file from the list of built-in predefined EDID files. An error message will be displayed if incorrect EDID is assigned to the input, for example, if attempting to assign EDID without a CEA block to an HDMI.

Predefined EDIDs are as follows:

- Copy Output Will apply the EDID of the display attached to the HDMI Output to the selected input.
- 01 DM Default
- Laptop 16x9 1080p60 2CH
- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Laptop 16x9 1080p50 2CH
- DM default 4k 30Hz 2CH
- DM Default VGA
- DM Default 4k 60Hz 2CH
- 2. Click **Apply CEDID** to apply the EDID to the HDMI input.
- 3. In the **Confirmation** dialog, click **Yes** to load the selected EDID file. Click **No** to cancel the operation.

Conf	firmation	×
0	Are you sure you would like to apply the CEDID?	
	✓ Yes 🗶 No	

Input Signals

 Input Signals 		
	Sync Detected	√Yes
	Resolutions	3840x2160@24
	Source HDCP	Active
+ More Details		

The Input Signals section displays the following information about the HDMI input signal.

- Sync Detected: Indicates whether video sync levels are detected at the HDMI input.
- **Resolution:** Displays the input signal resolution. **OxO@O** will be displayed if video signal is not detected.
- Source HDCP: Indicates the presence of HDCP (High-bandwidth Digital Content Protection), which requires compatible players and displays. Source HDCP will display Inactive if an input signal is not detected.

Click + **More Details** to view additional information about the HDMI input such as the HDCP state, horizontal and vertical resolution, aspect ratio, audio format, audio channels and more.

 Less Details 		
	Interlaced	x No
	Horizontal Resolution	3840
	Vertical Resolution	2160
	Frames Per Second	24
	Aspect Ratio	16:9

- Interlaced: Indicates whether the scanning method used is interlaced (Yes) or progressive (No).
- Horizontal Resolution: Displays the horizontal resolution of the input signal. Reported values range from 0 (source is not connected) to 4096 pixels.
- Vertical Resolution: Displays the vertical resolution of the input signal. Reported values range from 0 (source is not connected) to 2160 lines.
- Frames per Second: Displays the frame rate of the input signal. Reported values range from 0 (source is not connected) to 120.
- Aspect Ratio: Displays the aspect ratio of the input signal. Valid values are:
 - No Signal
 - 5:4
 - 4:3
 - 16:10
 - 16:9

Click -Less Details to hide this section from view.

DM Lite Inputs

The DM Lite 3 Input, DM Lite 4 Input or DM Lite 5 Input (HD-RX-4K-510-C-E[-SW4] only) page can be accessed at any time by expanding the INPUTS section and then clicking DM Lite 3, DM Lite 4 or DM Lite 5 in the navigation bar of the web interface.

CRESTRON.			? 🕚
STATUS			
ROUTING			 Actions
INPUTS	✓ General Settings		
HDMI 1			
HDMI 2	Name	DM Lite 5	
DM Lite 3	HDCP Receiver Capability	Auto	
DM Lite 4	- HD-TX-201-C-2G-E-B-T Inputs		
DM Lite 5			
AUDIO	Name	HDMI	
OUTPUT	HDCP Receiver Capability	HDCP 1.4	•
NETWORK	Name	VGA	
DEVICE	Audio Only Mode	Disabled	
		Dive	
	Audio Only Mode Color	Diue	•
		🖹 Set	
	▼ EDID		
	DM Lite 5 EDID Select	DM default 4k 60Hz 2CH	Apply CEDID
		01100100101100112001	
	= HD-TX-201-C-2G-E-B-T inputs		
	HDMI EDID Select	01 DM default 🔹	Apply CEDID
	VGA EDID Select	DM default VGA 🔹	Apply CEDID
	 Input Signals 		
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General Settings

Modify the name of this DM Lite input by editing the existing name or entering a brand new name in the **Name** field. Valid name can consist of up to 32 alphanumeric characters.

Use the **HDCP Receiver Capability** drop-down list to specify whether the HDCP Support capability for this input will be Disabled, Auto, HDCP 1.4 or HDCP 2.2.

Transmitter Inputs Settings

- HD-TX-201-C-2G-E-B-T Inputs	
Name	HDMI
HDCP Receiver Capability	HDCP 1.4
Name	VGA
Audio Only Mode	Disabled
Audio Only Mode Color	Blue 👻

NOTE: Not all transmitters will have the same controls. Multiple Name and/or HDCP Receiver Capability fields will be displayed for transmitters with multiple inputs.

- Name (each input): Modify the name of one or more transmitter inputs by editing the corresponding existing name or entering a brand new name.
- HDCP Receiver Capability: HDMI, DP or USB-C inputs.
- Audio Only Mode (VGA input): Move the slider to Enabled to allow analog audio to pass without having the VGA video present.
- Audio Only Mode Color (VGA input): Select Audio Only mode color from the drop down list. By default, the selected color is Blue.

Click **Set** to save any changes made in the **Name**, **HDCP Receiver Capability** and/or any **Transmitter Inputs** fields. Any changes will take effect immediately and the new/edited name is also reflected in the **Inputs** page.

EDID

EDID			
DM Lite 5 EDID Select	DM default 4k 60Hz 2CH	•	Apply CEDID
HD-TX-201-C-2G-E-B-T Inputs			
HDMI EDID Select	01 DM default	•	Apply CEDID
	DM default VCA	-	Apply CEDID

Predefined EDIDs for the DM Lite inputs are as follows:

- Copy Output Will apply the EDID of the display attached to the HDMI Output to the selected input.
- 01 DM Default
- Laptop 16x9 1080p60 22CH
- Laptop 16x10 1920x1200 2CH
- Laptop 16x10 1280x800 2CH
- Laptop widescreen 2CH
- Laptop 16x9 1080p50 2CH
- DM default 4k 30Hz 2CH
- DM Default VGA
- DM Default 4k 60Hz 2CH (default)

Applying EDID to the DM Lite Input

- 1. In the **DM Lite # EDID Select** drop down list, select an EDID file from the list of built-in predefined EDID or custom uploaded EDID files. An error message will be displayed if an incorrect EDID is assigned to the input.
- 2. Click **Apply CEDID** to apply the EDID to the DM Lite input.
- 3. In the **Confirmation** dialog click **Yes** to load the selected EDID file. Click **No** to cancel the operation:

Conf	firmation	×
0	Are you sure you would like to apply the CEDID?	
	✓ Yes 🗙 No	

Applying EDID to a Transmitter Input

- 1. In the **HDMI EDID Select** or **VGA EDID Select** drop down list, select an EDID file from the list of built-in predefined EDID or custom uploaded EDID files. An error message will be displayed if an incorrect EDID is assigned to the input.
- 2. Click the corresponding **Apply CEDID** button to apply the selected EDID to the corresponding transmitter input.
- 3. In the **Confirmation** dialog click **Yes** to load the selected EDID file. Click **No** to cancel the operation.



Input Signals

The Input Signals section displays the following read-only information about the input signal on the DM Lite input:

 Input Signals 	
Sync Detected	√Yes
Resolutions	3840x2160@24
Source HDCP	Inactive
+ Less Details	
+ HD-TX-201-C-2G-E-B-T Inputs	

- Sync Detected: Indicates if video sync levels are detected at the input.
- **Resolution:** Reports the detected resolution.
- Source HDCP: Indicates the presence of HDCP.

Click + More Details to view additional information about the DM Lite input settings. The + More Details section displays additional details about the HDCP state, horizontal and vertical resolution, aspect ratio, audio format and audio channels and more:

- More Details		
	Interlaced	xNo
	Horizontal Resolution	3840
	Vertical Resolution	2160
	Frames Per Second	24
	Aspect Ratio	16:9

- **Interlaced:** Indicates whether the input signal is interlaced (Yes) or progressive (No). 'No' is also displayed when a source is not connected.
- Horizontal Resolution: Reports the horizontal resolution of the input signal. Reported values range from 0 (source is not connected) to 4096 pixels.
- Vertical Resolution: Reports the vertical resolution. Reported values range from 0 (source is not connected) to 2160 lines.
- Frames per Second: Reports the frame per second rate of the input signal. Reported values range from 0 (source is not connected) to 120.
- Aspect Ratio: Reports the aspect ratio of the input signal. Valid values are:
 - No Signal
 - 5:4
 - 4:3
 - 16:10
 - 16:9

Click -Less Details to hide this section from view.

- HD-TX-201-C-2G-E-B-T Inputs	
HDMI	
Sync Detected	√ Yes
Resolutions	3840x2160@24
Source HDCP	Active
Interlaced	x No
Horizontal Resolution	3840
Vertical Resolution	2160
Frames Per Second	24
Aspect Ratio	16:9
VGA	
Sync Detected	x No
Resolutions	0x0@0
Horizontal Resolution	0
Vertical Resolution	0
Frames Per Second	0
Aspect Ratio	No Signal

Information about the corresponding transmitter inputs is also shown.

Audio

The AUDIO page can be accessed at any time by expanding the INPUTS section and then clicking on AUDIO in the navigation bar of the web interface.

CRESTRON		? 🌒
STATUS		Actions -
ROUTING		Y ACIOIS
INPUTS	✓ Mic Settings	
HDMI 1		
HDMI 2	- Mic 1	
DM Lite 3	Phantom Power	Off
DM Lite 4	0.1.(10)	
DM Lite 5	Gain (dB)	
AUDIO		0
OUTPUT	Mute	Off
NETWORK	- Mic 2	
DEVICE	- Mic 2	
	Phantom Power	Off
	Gain (dB)	
		0
	Muta	
	Mute	
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		Privacy Statement

Move the **Phantom Power** slider of the desired microphone input to **On** or **Off** (default setting) to enable (**On**) or disable (**Off**) the phantom power supply.

Use the **Gain** slider to adjust the gain on the desired mic input. Alternatively, enter a valid value in the range of 0 to 60 dB in the text field below the **Gain** slider. Invalid values will be ignored.

Move the **Mute** slider to **On** or **Off** (default) if the corresponding mic will be muted (**On**) or not (**Off**).

Output

Use the **Output** page to enable or disable the HDMI output, to blank the output, rename it, set the output resolution, or to enable or modify HDCP. In addition, automatic power settings and analog audio settings can be configured. Information about the connected display and the output signal can also be viewed.

The Output page can be accessed at any time by clicking the **OUTPUT** tab in the web interface.

CRESTRON			? 🔇
STATUS			
ROUTING			Actions
INPUTS	✓ Output Settings		
HDMI 1			
HDMI 2	Disable Output	No	
DM Lite 3	Blank Output	No	
DM Lite 4	Name	HDMLOutput	
DM Lite 5	Name		
AUDIO	Resolution	Auto	
	HDCP Transmitter Mode	Auto 💌	
NETWORK	Connected Display		
	 Output Signal 		
	HDMI/Aux 1/Speaker Output Audio Settings		
	Aux 2 Output Audio Settings		
	Automatic Power Settings		🖺 Save
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Output Settings

▼ Output Settings			
Disable Output Blank Output	No No		
Name	HDMI Output		
Resolution	Auto	-	
HDCP Transmitter Mode	Auto	•	

- **Disable Output:** Move the **Disable Output** slider to the desired position (**Yes** or **No**) to enable or disable the output settings. By default, **No** (enable) is selected, allowing the output display to turn on. If **Yes** is selected, the output display will turn off.
- Blank Output: Move the Blank Output slider to the desired position (Yes or No) to specify whether the output will be blanked (which creates an output of a free-run black frame).
- Name: Enter a name in the Name field to modify the name of the output. The default name is HDMI Output.

- **Resolution:** In the **Resolution** drop-down list, select the desired resolution of the HDMI output from the following available resolution settings. By default, the **Resolution** is set to **Auto** (Recommended).
 - Auto (Recommended)
 - ° 720p50
 - ° 720p60
 - ° 1080i25
 - ° 1080i30
 - ° 1080p30
 - ° 1080p24
 - ° 1080p25
 - ° 1080p50
 - ° 1080p60
 - ° 3840x2160@24
 - ° 3840x2160@25
 - ° 3840x2160@30
 - ° 4096x2160@24
 - ° 4096x2160@25
 - ° 4096x2160@30
 - ° 3840x2160@50
 - ° 3840x2160@60
 - ° 4096x2160@50
 - ° 4096x2160@60
- HDCP Transmitter Mode: Select the desired option from the HDCP Transmitter Mode drop-down list:
 - 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 supported by the downstream device. The scaler will not attempt to reauthenticate unless hotplugged or the downstream device HDCP support level changes.
 - **Follow Input:** Authenticates each time the input sync changes it state. The output will authenticate to the level reported at the input.
 - **Always:** Authenticates to and keeps synced with the highest level HDCP supported by the downstream device.
 - **Never:** The HDMI output will blank if the input is HDCP encrypted.

Connected Display

The **Connected Display** section of the Output page displays read-only information that identifies the display connected to the HDMI output.

✓ Connected Display	
Sink Connected	√Yes
Manufacturer	SAM
Name	SAMSUNG
Serial Number	16778752
	Save CEDID

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

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

Output Signal

▼ Output Signal	
Transmitting	√Yes
Resolution	3840x2160@60
HDCP	Active

The Output Signal section of the Output page displays read-only information about the output resolution of the device and whether the device is transmitting or not:

- **Transmitting:** Specifies whether the HDMI output is transmitting an HDMI signal to the connected display: Yes/No.
- **Resolution:** 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.

Displays **0x0@0** when the video signal is not being transmitted. For example, no HDMI cable is connected.

• HDCP: Reports whether HDCP is Active or Inactive.

If no output signal is being transmitted, HDCP will display **Inactive**.

HDMI/Aux 1/Amp Output Audio Settings



• Mixer Settings

The **Mixer Settings** section provides the ability to mix source, line, mic and aux audio together.

- Adjust the gain of the corresponding source, line, mic or aux audio by moving the desired Gain slider(s) up or down, or by entering a value in the corresponding text field below the slider. Valid values range from -80 dB to 20 dB, adjustable in 1 dB increments.
- Toggle the corresponding **Mute** slider to **On** or **Off** (default) to specify whether the corresponding audio will be muted or not.
- Master Volume: Adjust the master volume by moving the Master Volume slider to the left or right or by entering a value in the corresponding text field. Valid values range from -80 dB to 20 dB, adjustable in 1 dB increments.
- Stereo: Move the Stereo slider to On or Off to specify Stereo (On) or Mono (Off) output.
- Speaker Power: Move the Speaker Power to On or Off to turn speaker power on or off.
- Move the HDMI Output Mute, Aux1 Output Mute, Speaker Output Mute slider to On or Off to specify whether the corresponding audio will be muted or not.

Aux 2 Output Audio Settings



• Mixer Settings

The **Mixer Settings** section provides the ability to mix source, line, mic and aux audio together.

- Adjust the gain of the corresponding source, line, mic or aux audio by moving the desired Gain slider(s) up or down, or by entering a value in the corresponding text field below the slider. Valid values range from -80 dB to 20 dB, adjustable in 1 dB increments.
- Toggle the corresponding **Mute** slider to **On** or **Off** (default) to specify if the corresponding audio will be muted or not.
- Volume: Adjust the master volume by moving the Volume slider to the left or right or by entering a value in the corresponding text field. Valid values range from -80 dB to 20 dB, adjustable in 1 dB increments.
- Stereo: Move the Stereo slider to On or Off to specify Stereo (On) or Mono (Off) output.
- Mute: Toggle the Mute slider to On or Off (default) to specify whether the output audio will be muted (On) or not (Off).

Automatic Power Settings

Automatic Power Enabled Power Off (No Sync Detected) Output Timeout 5 Seconds Turn Off Output Seconds Seconds Send Command CEC • Power On (Sync Detected) Second S •	Save
Power On (Sync Detected) Power On (Sync Detected) Power On (Sync Detected) Power On (Sync Detected) CEC	
Seconds Turn Off Output Send Command CCC Power Ont (Sync Detected) Send Command CCC CCC CCC CCC CCC CCC CCC	
Turn Off Output Yes Send Command CEC • Power On [Sync Detected] Send Command CEC •	
Send Command CEC • Power On: Sync Detected) • •	
Power On (Sync Detacted) Power On (Sync Detacted) Send Command CEC	
Power On (Sync Detected) Send Command CEC	
Power On (Sync Detected) Send Command CEC	
Send Command CEC -	
Power On: RCP and IVO	
P Test	

Configure automatic power-off and power-on settings in the **Automatic Power Settings** section of the **Output** page.

By default, automatic power-on and power-off settings are disabled. To enable automatic power settings, move the **Automatic Power** slider to **Enabled**. To disable automatic power settings again, move the **Automatic Power** slider to **Disabled**.

Configuring Power-Off Settings

To configure the automatic power-off settings, do the following in the **Power Off** section:

- In the Output Timeout drop-down list, select the amount of time of signal inactivity before the HDMI output automatically turns off. Valid values range from 5 Seconds (default setting) to 90 Seconds. Alternatively, select Custom and enter the desired number of seconds (valid values range from 1 to 500 seconds) in the corresponding text entry field.
- 2. Move the **Turn Off Output** slider to **Yes** to turn off the HDMI output or to **No** to enable the output to remain turned on.

- 3. Choose the interface to send a power-off command by selecting one of the following from the **Send Command** drop-down list:
 - None: No command is sent. Continue with Step 6.

Γ	Power Off (No Sync Detected)					
	Output Timeout	5 Seconds	-			
		5	Seconds			
	Turn Off Output	Yes				
	Send Command	None	•			

• **CEC (Consumer Electronics Control):** When the CEC command is chosen, select one of the following options in the drop-down list displayed below the **Send Command** drop-down list.

Power Off (No Sync Detected)		
Output Timeout	5 Seconds	•
	5	Seconds
Turn Off Output	Yes	
Send Command	CEC	•
	Power Off: RCP and SS	•
	r Test	

- **Power Off: RCP (Remote Control Passthrough) and SS (System Standby):** Continue with Step 5.
- **Power Off: RCP Only:** Continue with Step 5.
- **Power Off: SS Only:** Continue with Step 5.
- **Custom:** Continue with Step 4.

Output Timeout	5 Seconds		•
	5	Seconds	
Turn Off Output	Yes		
Send Command	CEC		•
	Custom		•
Command Format	HEX		•
Command String			
Command Terminator	None		•

• RS232: Continue with Step 4.

Output Timeout	5 Seconds		-
	5	Seconds	
Turn Off Output	Yes		
Send Command	RS232		-
Command Format	HEX		
Command String			
Command Terminator	None		-

- 4. (Applicable only when **Send Command** is set to **CEC ->Custom** or to **RS232**) Do the following:
 - a. Select the **HEX** (default value) or **ASCII** from the **Command Format** drop-down list to specify whether the format of the command will be hexadecimal (HEX) or ASCII.
 - b. In the **Command String** text entry field, enter the command in hexadecimal or ASCII format.

When the **HEX** command format is selected, the **Command String** must be entered as pairs of characters separated by a space. Valid characters are 0-9, a-f, and A-F. A command string example is shown below:

58 00 0D 0A

- c. In the **Command Terminator** drop-down list, select one of the following terminators to append to the command:
 - None (specifies no terminator).
 - CR (carriage return).
 - LF (line feed).
 - CR LF (carriage return followed by a line feed).
- 5. Click 🖝 Test (if displayed) to test the command.
- 6. Click 🖹 Save to save the power-off settings.

Configuring Power-On Settings

After setting the **Automatic Power** setting to **Enabled**, configure power-on settings by doing the following in the **Power On (Sync Detected)** section:

- 1. Choose the interface to send a power-on command by selecting one of the following from the **Send Command** drop-down list:
 - None: No command is sent. Continue with Step 6.

Power On (Sync Detected)			
Send Command	None	•	

 CEC (Consumer Electronics Control): When CEC command is chosen, select one of the following options in the drop-down list displayed below the Send Command drop-down list.

Power On (Sync Detected)		
Send Command	CEC	•
	Power On: RCP and IVO	•
	→ Test	

- Power On: RCP (Remote Control Passthrough) and IVO (Image View On): Continue with Step 3.
- Power On: RCP Only: Continue with Step 3.
- **Power On: IVO Only:** Continue with Step 3.
- **Custom:** Continue with Step 2.

Power On (Sync Detected)		
Send Command	CEC	•
	Custom	•
Command Format	HEX	-
Command String	1	
Command Terminator	None	-
	r Test	

• **RS232:** Continue with Step 2.

Power On (Sync Detected)		
Send Command	RS232	-
Command Format	HEX	-
Command String		
Command Terminator	None	-
	rest 🔿	

- 2. (Applicable only when **Send Command** is set to **CEC ->Custom** or **RS232**) Do the following:
 - a. Select the **HEX** (default value) or **ASCII** from the **Command Format** drop-down list to specify whether the format of the command will be hexadecimal (HEX) or ASCII.
 - b. In the **Command String** text entry field, enter the appropriate command string based on display capabilities.

When the **HEX** command format is selected, the **Command String** must be entered as pairs of characters separated by a space. Valid characters are 0-9, a-f, and A-F. A command string example is shown below:

58 00 0D 0A

- c. In the **Command Terminator** drop-down list, select one of the following terminators to append to the command:
 - None (specifies no terminator).
 - CR (carriage return).
 - LF (line feed).
 - CR LF (carriage return followed by a line feed).
- If desired, enable Input Control by toggling the Input Control switch to Yes to control which HDMI input on the display is to be used to turn on the display. The default setting is No.

		_
Power On (Sync Detected)		
Send Command	CEC •	
	Power On: RCP and IVO 🔹	
Input Control	Yes	
Delay (seconds)	10 Seconds 🔹	
Command Format	HEX 👻	
Command String	EF 82 10 00	
Command Terminator	None 👻	
	→ Test	

- 4. (Applicable only when Input Control is set to Yes) Do the following:
 - a. Set **Delay** to the amount of time in seconds that must pass before input control commands can be sent to the display.
 - b. Select the **HEX** (default value) or **ASCII** from the **Command Format** drop-down list to specify whether the format of the command will be hexadecimal (HEX) or ASCII.
 - c. In the **Command String** text entry field, enter the command in hexadecimal or ASCII format.

When the **HEX** command format is selected, the **Command String** must be entered as pairs of characters separated by a space. Valid characters are 0-9, a-f, and A-F. A command string example is shown below:

58 00 0D 0A

- d. In the **Command Terminator** drop-down list, select one of the following terminators to append to the command:
 - None (specifies no terminator).
 - CR (carriage return).
 - LF (line feed).
 - CR LF (carriage return followed by a line feed).
- 5. Click 🕐 Test (if displayed) to test the command.
- 6. Click 🖹 Save to save the power-on settings.

Network

To configure the network settings of the HD-RX-4K-x10-C-E(-SW4), modify one or more of the following:

- Host Name: Overwrite the existing host name in the Host Name field with the desired new host name. The host name is restricted to the letters a to z (not case sensitive), the digits 1 to 9, and the hyphen.
- **Domain Name:** Specify a domain name.
- **Primary Static DNS:** Enter the IP address of the primary DNS server.

NOTE: The **Primary Static DNS** field may not be editable while DHCP is enabled.

• Secondary Static DNS: Enter the IP address of the secondary DNS server.

NOTE: The **Secondary Static DNS** field may not be editable while DHCP is enabled.

Adapter 1	
DHCP	Enabled
IP Address	172.30.164.80
Subnet Mask	255.255.240.0
Default Gateway	172.30.160.1

- DHCP: Set this slider to Enabled or Disabled to specify whether the IP address of the HD-RX-4K-x10-C-E(-SW4) is to be assigned by a DHCP (Dynamic Host Configuration Protocol) server.
 - When DHCP is Enabled (default setting), the IP address of the HD-RX-4K-x10-C-E(-SW4) is automatically assigned by a DHCP server on the LAN for a predetermined period of time.
 - When DHCP is **Disabled**, manually enter information in the following fields:
 - IP Address: Enter a unique IP address for the HD-RX-4K-x10-C-E(-SW4).
 - 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 new network entries, click **Save**. The HD-RX-4K-x10-C-E(-SW4) automatically reboots.

Device

The Device page can be used to configure and manage various functions of the HD-RX-4K-x10-C-E(-SW4) such as:

- Viewing the firmware version or serial number of the device
- Enabling/disabling the front panel lock
- Enabling/disabling the front panel LEDs
- Modifying RS232 settings
- Modifying control system settings
- Setting up authentication management options
- Configuring third-party control for compatible Cisco® video conference systems

The Device page can be accessed at any time by clicking the **DEVICE** tab in the navigation bar.

CRESTRON				?
STATUS ROUTING INPUTS OUTPUT	Device Management Control System			✓ Actions 🔹
NEIWOKK DEVICE	Authentication Management UserName Password Confirm Password	admin ••••• @		
	▼ Third Party Control	🖺 Save 🛛 🗅	Revert	
	Control	Disabled		

Device Management

 Device Management 	
- Firmware	
Firmware Version	1.0.4262.00177
Model	HD-RX-4K-510-C-E
Serial Number	1234567890
- Front Panel	
Front Panel Loci	Disabled
Front Panel LED	s Enabled
RS232 Settings	
Baud Rate	9600 👻
Data Bits	8 👻
Parity	None 👻
Stop Bits	1 •
Flow Control	None 👻
	🖺 Save
Cloud Settings	
Cloud Configuration Service Connection	(Enabled
	🖹 Save

Firmware

The **Firmware** section displays the following information about the HD-RX-4K-x10-C-E(-SW4).

- Firmware Version
- Model
- Serial Number

Front Panel

To prevent accidental changes to device settings, the **Front Panel** section of the Device page can be set to lock the front panel buttons on the HD-RX-4K-x10-C-E(-SW4). 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	Disabled
	Front Panel LEDs	Enabled

To enable the front panel lock, move the **Front Panel Lock** slider to the **Enabled** position; to disable it again, move the slider to the **Disabled** position (default setting).

To disable the front panel LEDs, move the **Front Panel LEDs** slider to the **Disabled** position (default setting). To enable it again, move the slider to **Enabled**.

RS232 Settings

To adjust RS232 communication parameters of the HD-RX-4K-x10-C-E(-SW4), do the following under **RS232 Settings**:

RS232 Settings				
	Baud Rate	9600		•
	Data Bits	8		•
	Parity	None		•
	Stop Bits	1		•
	Flow Control	None		•
		8	Save	

- 1. Select the desired speed of data transmission (baud rate) from the **Baud Rate** drop-down list. Available options are:
 - 1200
 - 1800
 - 2400
 - 3600
 - 4800
 - 7200
 - 9600 (Default value)
 - 14400
 - 19200
 - 28800
 - 38400
 - 57600
 - 115200

NOTE: The baud rate setting of **115200** must be used for third-party control by Cisco devices, which is configured under Third-Party Control (on page 44) on the Device page.

- 2. Select the number of data bits (7 or 8) that will be used from the Data bits drop-down list.
- 3. Choose the error checking type from the **Parity** drop-down list. Available options are :
 - None (default)
 - Odd
 - Even
 - Mark
- 4. Select the number of stop bits (1 or 2) that will be used from the **Stop bits** drop-down list.
- 5. Choose the flow control mechanism (controls the flow of data between the devices) from the **Flow Control** drop-down list.

Available options are:

- None (default)
- XON/XOFF (software handshake)
- 6. Click the **Save** button to save your modifications.

Cloud Settings

The **Cloud Settings** section of the Device page provides functionality to enable or disable the cloud configuration service connection. By default, the cloud configuration service connection is **Enabled**.

Cloud Settings	
Cloud Configuration Service Connection	Enabled

To disable the connection to the cloud server, move the **Cloud Configuration Service Connection** slider to the **Disabled** position. To enable it again, move the slider to **Enabled**.

Control System

To connect the HD-RX-4K-x10-C-E(-SW4) to a control system, in the **Control System** section of the page, do the following:

IPID	99 👻
IP Address/Host Name	172.30.160.245
Status	ONLINE
	🖹 Save

- 1. In the **IP ID** drop-down list, select the IP ID of the HD-RX-4K-x10-C-E(-SW4). Valid values range from 03 to FE in hexadecimal notation.
- 2. In the **IP Address/Host Name** text field, enter the IP address or hostname of the control system.
- 3. The **Status** field (read only) displays the connection status of the HD-RX-4K-x10-C-E(-SW4) to the control system as **OFFLINE** or **ONLINE**.
- 4. To save the new entries, click **Save Changes**. The **Control System Save** message box appears, indicating that the control system settings were saved successfully.

Authentication Management

Use the Authentication Management section to make changes to your user name and password.

Authentication Management			
UserName	admin		
Password	•••••		
Confirm Password	•••••		
	🖹 Save	ా	Revert

To change the username and password:

NOTE: The username and password are case sensitive.

In the **Username** text field, enter the desired username.

In the **Password** text field, enter the desired password.

In the Confirm Password text field, reenter the desired password

To save the updated user name and password, click Save.

To revert to the previous user name and password without saving the current entries, click **Revert**.

Third-Party Control

Third-party control enables source inputs from the HD-RX-4K-x10-C-E(-SW4) to be added to the inputs of compatible Cisco video conference systems that are controlled by the Cisco Touch 10 control unit.

Integration of Crestron HD-RX-4K-x10-C-E(-SW4) source inputs with Cisco devices requires that the following tasks be performed:

- 1. Generation of a configuration file that configures the Crestron and Cisco devices and defines the appearance of the source selection buttons on the Cisco Touch 10 screen (refer to <u>Generating a Configuration File</u> for information).
- 2. Configuration of third-party control on the Device page of the HD-RX-4K-x10-C-E(-SW4) web interface (refer to Enabling Third-Party Control for information).

If desired, third-party control can be disabled (refer to <u>Disabling Third-Party Control</u> for information).

Generating a Configuration File

To generate a configuration file:

1. Go to https://configuration.crestron.com.

The Crestron-Cisco Touch 10 Configuration page opens.

× +			-	
on.crestron.com			☆	* \varTheta :
			Crestron-Cisco Touch 10 Co	infiguration
on 🖵 Source Buttons	🛓 Export File			
Enter filename or import exis	ting file		±	
HD-RX-4K-510-C-E-SW4 🗸	Crestron Output	HDMI	*	
Webex Room Kit Mini 🛛 🗸	Cisco Input	HDMI 1	~	
RS-232 👻				
	Password			
	x + ancrestron.com	x + on crestron.com Source Buttons Export File Enter filename or import existing file Dr.X.4K-510-CE-SW4 Crestron Output Webex Room Kil Mini Cisco Input RS-232 V Password	x + on Source Buttons Export File Enter filename or import existing file DrX:4K-510-CE-SW4 Crestron Output HDMI Cisco Input HDMI 1 RS:232 Password	× + nurestron.com x x Crestron Cisco Touch 10 Co Crestron Cisco Touch 10 Co Passwort Passwort Passwort Cisco Input (PDMI) Passwort Passwort Cisco Cisco Touch 10 Co Cisco Input (PDMI) Cisco Input (PDMI) Passwort Cisco Cisco Touch 10 Co Cisco Cisco

- 2. Under the Hardware Configuration tab, configure the following parameters:
 - Filename: Enter the desired name of the configuration file.
 - Crestron Hardware: Select HD-RX-4K-410-C-E, HD-RX-4K-410-C-E-SW4, HD-RX-4K-510-C-E, or HD-RX-4K-510-C-E-SW4.
 - **Cisco Hardware:** Select the desired Cisco video conference system. Available options are:

Webex Room Kit

Webex Room Kit Mini (default setting)

Webex Room Kit Plus

Webex Room Kit Pro

Webex Codec Plus

Webex Codec Pro

Webex Room 55 Single

Webex Room 55 Dual

Webex Room 70

Webex Room 70 G2

SX80 Codec

- Communication: RS-232 is the only available selection.
- **Username:** Enter the desired username to be used for authentication to connect to the Cisco video conference system.
- Crestron Output: HDMI is the only available selection.

- **Cisco Input:** Select the desired input port of the selected Cisco video conference system.
- **Password:** Enter the desired password to be used for authentication to connect to the Cisco video conference system.
- 3. Under the **Source Buttons** tab, click **+Add Source Button**. The Add Source Button dialog box opens.

Cisco Configurator	× +				- 0
→ C	tion.crestron.com				* * 8
CRESTRON					
🔅 Hardware Configura	ation 📮 Source But	tons 🛃 Export File			
Button Label	Button Icon	Switcher Input	Transmitter Model	Transmitter Input	Edit/Delete
		Add Source Butto			
+ Add Source	Button				
		Button Label	New Source		
		Button Icon	PC v		
		Switcher Input	HDMI In1 🗸		
			D Caus Dutter	M Connect	
			Save Button		

Configure the following parameters to add buttons that will be used on the Cisco Touch 10 screen for each input that is available from the HD-RX-4K-x10-C-E(-SW4):

- Button Label: Enter the desired name of the button.
- Button Icon: Select the desired icon for the button.

- Switcher Input: Configure the input ports on the HD-RX-4K-x10-C-E(-SW4):
 - If the input port is HDMI In1 (default setting) or HDMI In2, click Save Button. The button is added to the Source Buttons list.
 - If the input port is **DMLite In3**, **DMLite In4**, or **DMLite In5** (HD-RX-4K-510-C-E [-SW4]) only, configure the following parameters:
 - **Transmitter Model:** Select the desired Crestron DM Lite transmitter. Available options are:

HDI-TX-301-C-2G-E HD-TX-301-C-E HD-TX-201-C-2G-E HD-TX-101-C-E HD-TXC-101-C-E HD-TX-101-C-1G-E HD-TXC-101-C-1G-E

Configuration	🖵 Source Buttons	🛓 Export File			
	Add Source Butte	on			
Button Label Button ic	Button Label	HDMI Input 2			Edit/Delete
+ Add Source Butto	Button Icon	PC	~		
	Switcher Input	DMLite In3	~		
	Transmitter Model	HDI-TX-301-C-2G-E	~		
	Transmitter Input	HDMI In2	~		
		Save Button		× Cancel	

Transmitter Input: The list of transmitter inputs varies depending on the transmitter model that is selected. Select each input for which a button is to be added to the Cisco Touch 10 screen, or select No Change to make a route change to the DM Lite input without changing which input on the DM Lite transmitter is to be routed. For each button, click Save Button. Each button is added to the Source Buttons list as shown in the following example.

Hardware Cor	nfiguration	Source Buttons	🛃 Export File		
Button Label	Button Icon	Switcher Input	Transmitter Model	Transmitter Input	Edit/Delete
New Source	PC	HDMI In1	Not Used	Not Used	2
New Source	PC	DMLite In3	HDI-TX-301-C-2G-E	HDMI In2	

NOTE: In the **Edit/Delete** column of the Source Buttons list, buttons can be edited by clicking the Edit (2) icon or deleted by clicking the Delete (1) icon.

4. Under the **Export File** tab, click **Export File** to export the file to the local hard drive of your computer. The file is named *.json (* is the filename assigned to the configuration file).

⊉CRESTRON			Crestron-Cisco Touch 10 Configuration	
Configuration	Source Buttons	🛓 Export File		
Configuration Data Status:	Ok			
✓ Export File				

Enabling Third-Party Control

On the Device page of the HD-RX-4K-x10-C-E(-SW4) web interface, enable third-party control for compatible Cisco video conference systems:

- 1. In the **RS232 Settings** section of the page, ensure that **Baud Rate** is set to **115200**.
- 2. In the **Third-Party Control** section of the page, toggle the **Control** switch to **Enabled** to allow integration with a supported Cisco device. The default setting is **Disabled**.



3. In the **Cisco** section, click the **Select File** button and then browse and select the configuration file generated in the Generating a Configuration File (on page 45) section.

NOTE: Login credentials for the Cisco device are encrypted and embedded in the configuration file.

The configuration file loads and the HD-RX-4K-x10-C-E(-SW4) connects to the Cisco device. When the connection is successful, the **Connected** status indicates **Yes**, and the Cisco device model and firmware version are displayed as shown in the example below.

CRESTRON		? 🏵	î
STATUS	+ Third Party Control		
INPUTS	Cori	Vol (Enabled	
оитрит	Cisco		
DEVICE	Configuration File		
		le Cisco HD-RX-4K-210 Configison	
		😁 Select File	
	Dev	28 Webex Codec Pro	
	Communicat	on RS-232	
	File Loa	ed √Yes	
	Device/Communication		
	PM	se verify the RS232 baud rate is set to 115,200.	
	Override Configuration	de No	а.
		ne la	
			L
		E Save/Connect	L
	Connec	ed v/Yes	L
	Detected Dev	ce Cisco Webex Codec Pro	L
	Detected Firmw	re ce10.0.1.2	
	edited Courses Florencies for		
	w2021 Crestron Discontrol, Inc.	Privacy Statement	а.

- 4. (Applicable only if login credentials for the Cisco device need to be updated) Do the following:
 - a. Toggle the Override Configuration File switch to Yes.
 - b. Enter the new credentials in the **Username** and **Password** text boxes.
 - c. Press the **Save/Connect** button to reconnect to the Cisco device.

CRESTRON.		? 🌘
STATUS	Third Party Control	
ROUTING		
INPUTS	Contro	Enabled
OUTPUT	Cisco	
NETWORK	Configuration File	
DEVICE		
		Cisco HD-KX-WK-210 Complyon
		C Select File
	Devic	/ Webex Codec Pro
	Communicatio	N R5-232
	File Loade	I √Yes
	Device/Communication	
	Please verify the R5232 based rate is set to 115,200.	
	Override Configuration Fil	2 1000
	Usernam	a admin
	Passwor	
		Save/Connect
	Connecte	J √Yes
	Detected Devic	2 Cisco Webex Codec Pro
	Detected Firmwar	s ce10.0.1.2
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Disabling Third-Party Control

To disable third-party control for Cisco video conference systems:

- 1. In the **Third-Party Control** section of the Device page, toggle the **Control** switch to **Disabled**.
- 2. Reset the external HD-RX-4K-x10-C-E(-SW4) input buttons on the Cisco Touch10 device as follows:
 - a. Log in to the web interface of the Cisco video conference system.
 - b. Select **Developer API** from the left panel.
 - c. Execute the following command:

xCommand UserInterface Presentation ExternalSource RemoveAll

This page is intentionally left blank.

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