DM-TXRX-100-STR
HD Streaming Transmitter/Receiver

Supplemental Guide

Contents

DM-TXRX-100-STR: HD Streaming Transmitter/Receiver

Introduction

The Crestron® DM-TXRX-100-STR is an H.264 streaming encoder/decoder designed to enable the distribution of high-definition audio/video signals over an IP network. The DM-TXRX-100-STR is configurable as either a transmitter or receiver. As a streaming transmitter, the DM-TXRX-100-STR allows a laptop computer, camera, or other media source to be connected via an HDMI® cable and streamed out over an Ethernet LAN, WAN, or Internet connection. The H.264 encoded signal can be routed to the streaming input of a DigitalMedia™ switcher, a DM-RMC-100-STR, or another DM-TXRX-100-STR, or it can be viewed on Crestron touch screens, digital signage displays, mobile devices, and other H.264 compatible equipment. As a streaming receiver, the DM-TXRX-100-STR decodes the streaming signal from a DigitalMedia switcher, IP camera, or other streaming source and then outputs the signal as an HDMI signal to feed the input of a display device, AV receiver, or switcher.

The web-based user interface of the DM-TXRX-100-STR facilitates configuration of the DM-TXRX-100-STR from a laptop. Extensive configuration, control, and monitoring of the DM-TXRX-100-STR are also provided through integration with a Crestron control system.

This guide provides information about configuration of the DM-TXRX-100-STR using the web-based user interface. For additional information, refer to the DM-TXRX-100-STR DO Guide (Doc. 7620).

User Interface Overview

The user interface of the DM-TXRX-100-STR consists of built-in web pages that allow configuration of stream, on-screen display, HDMI input, HDMI output, network, and device settings. In addition, status information about the DM-TXRX-100-STR can be viewed.

Accessing the User Interface

The user interface is accessed from a web browser. The following table lists various operating systems and the corresponding web browsers that are supported by the DM-TXRX-100-STR user interface.

Operating System and Supported Web Browsers for the DM-TXRX-100-STR User Interface

OPERATING SYSTEM	SUPPORTED WEB BROWSERS
Windows® operating system	Internet Explorer® web browser, version 9 and later Chrome™ web browser, version 31 and later Firefox® web browser, version 31 and later
OS X® operating system	Safari® web browser, version 6 and later Chrome web browser, version 31 and later Firefox web browser, version 31 and later
iOS® operating system	Safari web browser, version 6 and later Chrome web browser, version 31 and later
Android™ operating system	Chrome web browser, version 31 and later

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

- Open a web browser directly. For additional information, refer to "Opening a Web Browser Directly" on the following page.

- Open a web browser within the Crestron Toolbox™ application. For additional information, refer to "Opening a Web Browser within the Crestron Toolbox Application" on the following page.

Opening a Web Browser Directly

To access the user interface by opening a web browser directly, do the following:

1. Find the IP address of the DM-TXRX-100-STR by pressing the **SETUP** button on the device and noting the IP address on the connected display. The IP address is displayed for 10 seconds.

2. Open a web browser.

3. Go to the IP address of the DM-TXRX-100-STR.

   NOTE: A warning indicating a security certificate problem or privacy error may appear. Ignore the warning and continue to access the DM-TXRX-100-STR web interface.

   The user name and password dialog box opens. For login information, refer to "Logging In to the DM-TXRX-100-STR" on the following page.

Opening a Web Browser within the Crestron Toolbox Application

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

1. Open the Crestron Toolbox application.

2. From the **Tools** menu, select **Device Discovery Tool.**

   NOTE: You can also access the Device Discovery Tool by clicking the Device Discovery Tool button (🔍) in the toolbar.

   NOTE: The security software running on the computer may send a program alert regarding the attempt of the Crestron Toolbox application to connect to the network. Allow the connection so that the Device Discovery Tool can be used.

The DM-TXRX-100-STR is automatically discovered and is listed in the device list on the left-hand side of the screen. The associated host name, IP address, and firmware version are also displayed.

3. In the device list, double-click **DM-TXRX-100-STR.**

The Authentication dialog box opens.

4. Do the following:

    a. Enter a user name and password. The default user name is *admin*, and the default password is *admin*.

    b. Click the **OK** button.

A configuration pane appears for the DM-TXRX-100-STR.

5. Click the **Web Configuration** button.

A browser window opens.

NOTE: A warning indicating a security certificate problem or privacy error may appear. Ignore the warning and continue to access the DM-TXRX-100-STR web interface.

The user name and password dialog box opens. For login information, refer to "Logging In to the DM-TXRX-100-STR" on the following page.

Logging In to the DM-TXRX-100-STR

The user name and password dialog box allows login to the DM-TXRX-100-STR.

NOTE: Depending on the web browser being used, the user name and password dialog box may vary from the dialog box shown below.

User Name and Password Dialog Box
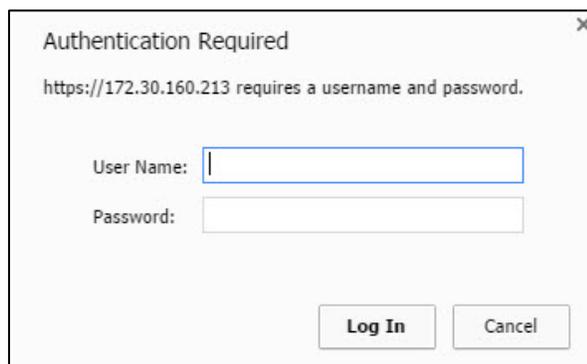
To log in to the DM-TXRX-100-STR, do the following:

1. Enter the user name and password. The default user name is *admin*, and the default password is *admin*.

NOTE: The user name and password are case sensitive.

NOTE: For enhanced security, it is recommended that the password be changed. For information about changing the password, refer to "Changing the Password" on page 23.

2. Click **Log In**.

The Status page opens. For information about navigating the user interface, refer to "Navigating the User Interface" below. For information about the Status page and all configuration pages of the DM-TXRX-100-STR, refer to "Status and Configuration" on page 5.

Navigating the User Interface

The user interface provides a navigation bar and the built-in web pages of the DM-TXRX-100-STR.

DM-TXRX-100-STR User Interface (Sample Status Page Shown)
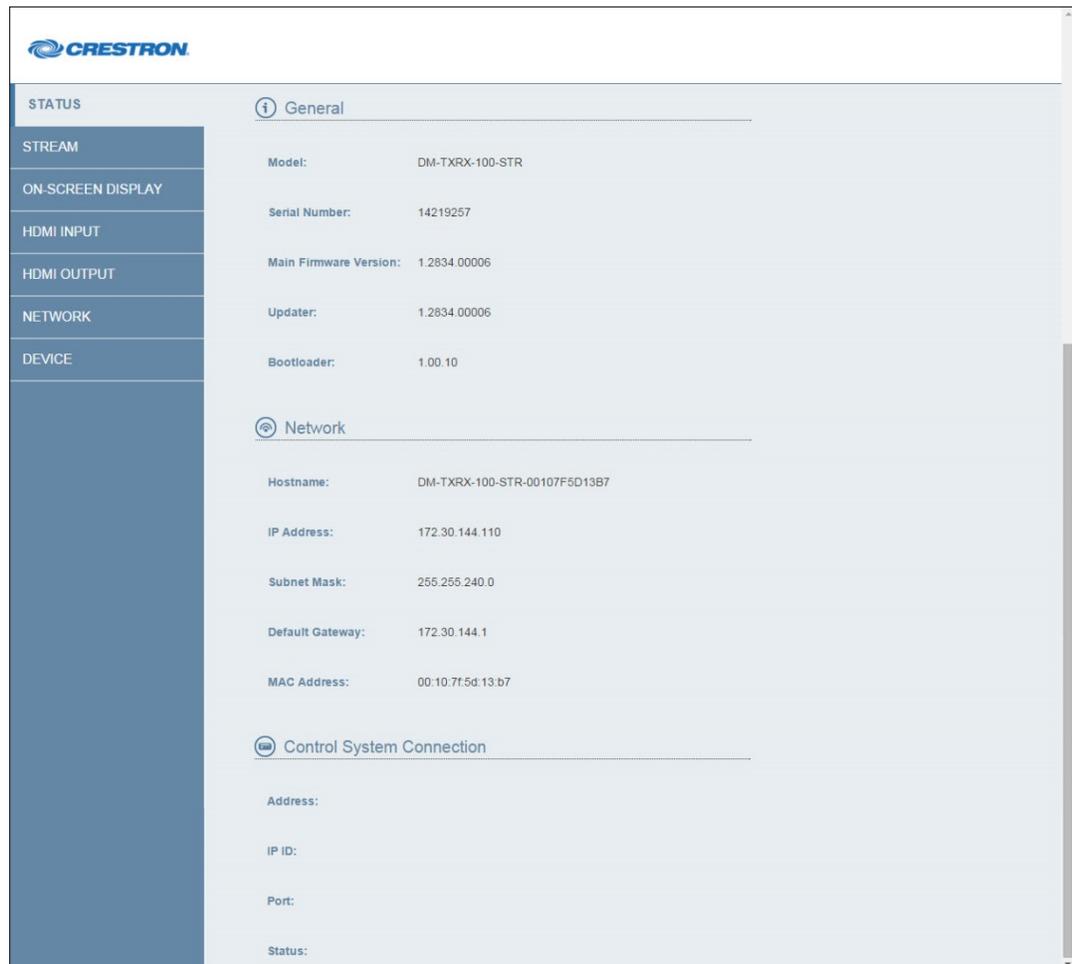
The navigation bar provides access to the web pages as follows:

- Clicking **STATUS** accesses the Status page, which provides general information about the DM-TXRX-100-STR as well as network-related and control system information. For additional information, refer to "Viewing DM-TXRX-100-STR Status Information" on page 5.

- Clicking **STREAM** accesses the Stream page, which allows configuration of the DM-TXRX-100-STR as a streaming transmitter or receiver. For additional information, refer to "Configuring Stream Settings" on page 7.

- Clicking **ON-SCREEN DISPLAY** accesses the On-Screen Display page, which allows text to be overlaid on the connected display. For additional information, refer to "Configuring On-Screen Display Settings" on page 13.

- Clicking **HDMI INPUT** accesses the HDMI Input page, which allows the desired EDID file to be selected and sent to the HDMI input. For additional information, refer to "Configuring HDMI Input Settings" on page 14.

- Clicking **HDMI OUTPUT** accesses the HDMI Output page, which allows the HDMI output to be enabled or disabled and the output resolution to be set. For additional information, refer to "Configuring HDMI Output Settings" on page 16.

- Clicking **NETWORK** accesses the Network page, which allows network settings such as host name, domain name, and DHCP (Dynamic Host Configuration Protocol) mode to be set. For additional information, refer to" Configuring Network Settings" on page 18.

- Clicking **DEVICE** accesses the Device page, which sets up connection to a control system and controls various device functions. For additional information, refer to "Configuring Device Settings" on page 19.

Status and Configuration

The web-based user interface of the DM-TXRX-100-STR displays status information and allows configuration of the following:

- Stream settings
- On-screen display settings
- HDMI input settings
- HDMI output settings
- Network settings
- Device settings

Viewing DM-TXRX-100-STR Status Information

General information, such as model name, serial number, and firmware version of the DM-TXRX-100-STR, can be viewed. The current network settings, such as host name and IP address, can also be viewed. Control system connection information is also provided.

To view status information, do the following: In the navigation bar, click **STATUS**. The Status page opens.

NOTE: The Status page opens after logging in to the DM-TXRX-100-STR.

Sample Status Page

The Status page displays the following information about the DM-TXRX-100-STR:

- General information, which consists of the following:

  o Model, which is **DM-TXRX-100-STR**

  o Serial Number

  o Main Firmware Version

  o Updater

  o Bootloader

- Network-related information, which consists of the following:

  o Host Name

    NOTE: In the sample Status page shown above, the default host name is DM-TXRX-100-STR-00107F5D13B7, where 00:10:7f:5d:13:b7 is the MAC address of the device.

  o IP Address

  o Subnet Mask

o   Default Gateway

o   MAC Address

- Control system connection information, which consists of the following:

    o   Address

    o   IP ID

    o   Port

    o   Status (OFFLINE or ONLINE)

Configuring Stream Settings

To configure stream settings, do the following:

1. In the navigation bar, click **STREAM**. The Stream page opens.

    Stream Page
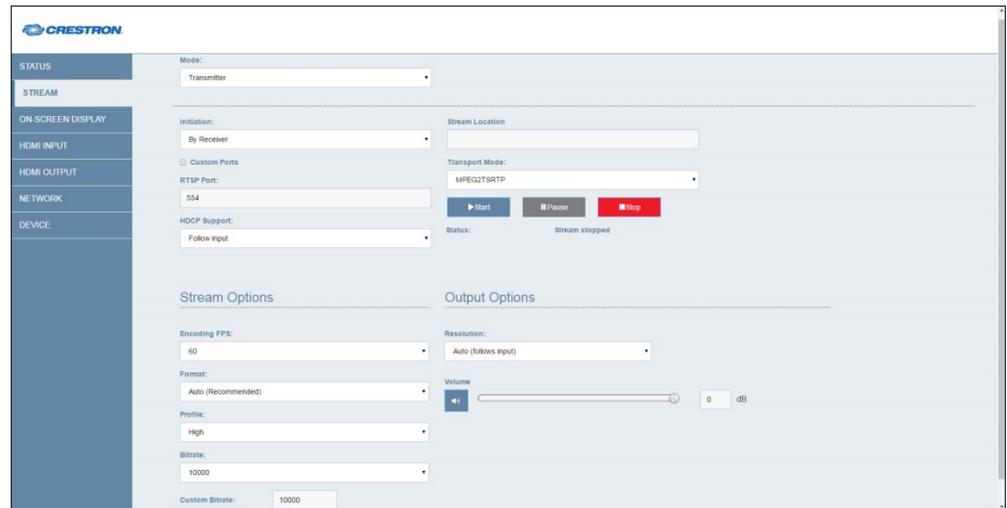
2. Configure stream settings. Refer to the following table for stream configuration guidelines. In addition, refer to the Streaming Design Guide (Doc. 7610) at www.crestron.com/manuals for information about DigitalMedia streaming.

Stream Configuration Guidelines

CONFIGURATION ITEM	GUIDELINES
Mode	Specifies the mode of operation of the DM-TXRX-100-STR. In the **Mode** drop-down list, select either of the following: • **Receiver:** Allows the DM-TXRX-100-STR to function as a streaming receiver • **Transmitter:** (Default setting) Allows the DM-TXRX-100-STR to function as a streaming transmitter

Initiation	Specifies the streaming method used to determine when the DM-TXRX-100-STR is to begin streaming. In the **Initiation** drop-down list, select one of the following:
	
	• **By Receiver:** (Default setting) Specifies a unicast RTSP H.264 stream or HTTP MJPEG stream:
	
	  o If **Mode** is set to **Receiver**, the DM-TXRX-100-STR attempts to connect to the transmitting device whose address is specified in the **Stream Location** text box. The stream must be configured before the DM-TXRX-100-STR can connect to the transmitting device. Refer to the documentation of the transmitting device for information about configuring the device.
	
	  o If **Mode** is set to **Transmitter**, the DM-TXRX-100-STR waits for an incoming connection from a client. When the client connects, the initiation session parameters are exchanged and the stream begins.
	
	• **By Transmitter:** Specifies a unicast UDP stream:
	
	  o If **Mode** is set to **Receiver**, the DM-TXRX-100-STR waits for an incoming connection from a client. When the client connects, the initiation session parameters are exchanged and the stream begins.
	
	  o If **Mode** is set to **Transmitter**, the DM-TXRX-100-STR attempts to connect to the receiving device whose address is specified in the **Stream Location** text box. The stream must be configured before the DM-TXRX-100-STR can connect to the receiving device. Refer to the documentation of the receiving device for information about configuring the device.
	
	• **Multicast via RTSP:** Specifies a multicast RTSP stream:
	
	  o If **Mode** is set to **Receiver**, the DM-TXRX-100-STR attempts to connect to the transmitting device whose address is specified in the **Stream Location** text box. The stream must be configured before the DM-TXRX-100-STR can connect to the transmitting device. Refer to the documentation of the transmitting device for information about configuring the device.
	
	  o If **Mode** is set to **Transmitter**, the DM-TXRX-100-STR waits for an incoming connection from a client. The stream is sent to the multicast IP address specified in the **RTSP Multicast Address** text box.

(Continued on following page)

Stream Configuration Guidelines (Continued)

CONFIGURATION ITEM	GUIDELINES
Initiation (Continued)	• **Multicast via UDP:** Specifies a multicast UDP stream: 　　o If **Mode** is set to **Receiver**, the DM-TXRX-100-STR attempts to connect to the transmitting device whose multicast IP address is specified in the **Multicast Stream Location** text box. 　　o If **Mode** is set to **Transmitter**, the DM-TXRX-100-STR begins streaming to the multicast IP address specified in the **Multicast Stream Location** text box.
Stream Location	(Enabled only when **Initiation** is set to **By Receiver, By Transmitter,** or **Multicast via RTSP**) If **Mode** is set to **Receiver**, enter the stream location using the standard scheme format: • If Initiation is set to By Receiver: 　　o For a unicast RTSP stream, enter the RTSP URL, for example: 　　**rtsp://streaming.server.com:544/path/to/file.sdp** 　　o For an MJPEG stream, enter the HTTP URL, for example: 　　**http://192.168.2.100/video.mjpg** • If Initiation is set to Multicast via RTSP, enter the RTSP URL, for example: rtsp://streaming.server.com:544/path/to/file.sdp If **Mode** is set to **Transmitter** and **Initiation** is set to **By Receiver** or **Multicast via RTSP,** the **Stream Location** text box is read only and displays the RTSP URL of the client. If **Mode** is set to **Transmitter** and **Initiation** is set to **By Transmitter,** enter the IP address of the receiving device, for example: **192.168.2.100**
Multicast Stream Location	(Enabled only when **Initiation** is set to **Multicast via UDP**) Enter the multicast IP address in dotted decimal notation, for example: **225.1.1.1**
RTSP Multicast Address	(Enabled only when **Mode** is set to **Transmitter** and **Initiation** is set **to Multicast via RTSP**) Enter the multicast IP address in dotted decimal notation, for example: **225.1.1.1**
Transport Mode	Specifies the stream type. In the **Transport Mode** drop-down list, select one of the following: • **RTP:** Allows the DM-TXRX-100-STR to stream the audio and video as separate RTP streams. Each RTP stream uses a different port. Refer to the documentation of the receiving or transmitting device to verify that this setting should be used. • **MPEG2TSRTP:** (Default setting) Allows the DM-TXRX-100-STR to receive or transmit MPEG-2 TS streams with RTP encapsulation. Only one port number is consumed by the encapsulation. The default port number is **4570**. • **NOTE:** **MPEG2TSRTP** supports the streaming of HDCP content to a Crestron HDCP streaming receiver. Refer to the documentation of the receiving or transmitting device to verify that the device can encapsulate the stream in MPEG-2 TS.

(Continued on following page)

Stream Configuration Guidelines (Continued)

CONFIGURATION ITEM	GUIDELINES
Transport Mode (Continued)	• **MPEG2TSUDP:** Allows the DM-TXRX-100-STR to receive or transmit MPEG-2 TS UDP streams. Only one port number is consumed by the encapsulation. The default port number is **4570**. NOTE: **MPEG2TSUDP** is recommended for multicast UDP streams. **MPEG2TSUDP** supports the streaming of HDCP content to a Crestron HDCP streaming receiver. Refer to the documentation of the receiving or transmitting device to verify that the device can encapsulate the stream in MPEG-2 TS.

Custom Ports	Enables or disables the assignment of custom port numbers for the selected Initiation method (**By Receiver**, **By Transmitter**, **Multicast via RTSP**, or **Multicast via UDP**). By default, the **Custom Ports** check box is deselected. The default port numbers are as follows:
	
	• For **By Receiver**, the default RTSP port number is **554**.
	• For **By Transmitter**, the default port numbers are as follows:
	  o If **Transport Mode** is set to **RTP**, the default RTP video port number is **49170** and the default audio port number is **49172**. The audio port number is always the next even-numbered port number following the video port number.
	  o If **Transport Mode** is set to **MPEG2TSRTP** or **MPEG2TSUDP**, the default TS port number is **4570**.
	• For **Multicast via RTSP**, the default RTSP port number is **554**.
	• For **Multicast via UDP**, the default port numbers are as follows:
	  o If **Transport Mode** is set to **RTP**, the default RTP video port number is **49170** and the default audio port number is **49172**. The audio port number is always the next even-numbered port number following the video port number.
	  o If **Transport Mode** is set to **MPEG2TSRTP** or **MPEG2TSUDP**, the default TS port number is **4570**.
	
	To change the port numbers, select the **Custom Ports** check box and do the following:
	
	• For **By Receiver**, enter the desired port number in the **RTSP Port** text box. Valid values range from **1** to **65535**.
	• For **By Transmitter**, enter the desired port number in the **RTP Video Port** or **TS Port** text box. Valid values range from **1** to **65535**. The audio port number becomes the next even-numbered port number following the video port number.
	• For **Multicast via RTSP**, enter the desired port number in the **RTSP Port** text box. Valid values range from **1** to **65535**.
	• For **Multicast via UDP**, enter the desired port number in the **RTP Video Port** or **TS Port** text box. Valid values range from **1** to **65535**. The audio port number becomes the next even-numbered port number following the video port number.

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CONFIGURATION ITEM	GUIDELINES
HDCP Support	(Applicable only when **Mode** is set to **Transmitter, Initiation** is set to **By Receiver,** and **Transport Mode** is set to **MPEG2TSRTP** or **MPEG2TSUDP**) Specifies when HDCP content can be streamed to a Crestron HDCP streaming receiver: • **Follows input:** (Default setting) The streaming content is encrypted only when HDCP content is detected at the HDMI input. • **Always:** The streaming content is encrypted regardless of whether HDCP content is detected at the HDMI input. • **Never:** The streaming content is not encrypted regardless of whether HDCP content is detected at the HDMI input.
Stream Options, Buffer	(Applicable only when **Mode** is set to **Receiver**) Specifies the amount of time in milliseconds that the device delays before playout of the audio and video in the stream buffer. Larger buffers absorb disturbances in the stream but result in more latency. In the **Buffer** drop-down list, select one of the following: Minimal (<100ms latency) Small (100-500ms latency) Medium (1000ms latency) Large (5000ms latency) Custom The default setting is **Medium (1000ms latency)**. If **Custom** is selected, the **Custom Buffer (ms)** spin box is enabled. Click the up or down arrow to select the desired custom buffer size. Available values range from **0** to **5000** milliseconds.
Stream Options, Statistics	(Applicable only when **Mode** is set to **Receiver**) Enables or disables statistics for the number of dropped packets for video and audio. By default, the **Disable** radio button is selected. To enable statistics, click the **Enable** radio button. The **Dropped Packets** fields (read only) display the statistics for video and audio. To reset the statistics, click the **Reset Statistics** button. If the **Disable** radio button is selected, the **Dropped Packets** fields and the **Reset Statistics** button are disabled.
Stream Options, Encoding FPS	(Applicable only when **Mode** is set to **Transmitter**) Specifies the number of frames per second (FPS) for encoding. In the **Encoding FPS** drop-down list, select one of the following values: **25**, **30**, **50**, or **60**. The default setting is **60**.
Stream Options, Format	(Applicable only when **Mode** is set to **Transmitter**) Specifies the resolution of the stream. In the **Format** drop-down list, select one of the following: Auto (Recommended) 720x480 1366x768 176x144 800x480 1440x900 352x288 800x600 1600x900 528x384 1024x768 1600x1200 640x360 1280x720 1680x1050 640x480 1280x800 1920x1080 The default setting is **Auto (Recommended)**. **Auto** follows the input resolution.

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Stream Configuration Guidelines (Continued)

CONFIGURATION ITEM	GUIDELINES
Stream Options, Profile	(Applicable only when **Mode** is set to **Transmitter**) Specifies the set of capabilities that target specific classes of applications. In the **Profile** drop-down list, select one of the following: • **High:** (Default setting) Specifies the primary profile for broadcast and disc storage applications, particularly for high-definition television applications • **Main:** Specifies the profile used for standard-definition digital television broadcasts that use the MPEG-4 format defined in the Digital Video Broadcasting (DVB) standard • **Baseline:** Specifies a profile used primarily for videoconferencing and mobile applications
Stream Options, Bitrate	(Applicable only when **Mode** is set to **Transmitter**) Specifies the bit rate of the stream in kilobits per second (kbps). In the **Bitrate** drop-down list, select one of the following values: 500 5000 1000 6000 1500 7000 2000 8000 2500 9000 3000 10000 3500 20000 4000 25000 4500 Custom The default setting is **10000** kbps. If **Custom** is selected, the **Custom Bitrate** text box is enabled. Enter the desired bit rate. Valid values range from **96** to **25000** kbps.
Output Options, Resolution	Specifies the resolution of the HDMI output. In the **Resolution** drop-down list, select one of the following: NOTE: In the following list, *RB* denotes *Reduced Blanking*. Auto (follows input) 1440x900@60 640x480@60 1440x900@60 RB 800x600@60 1600x900@60 RB 1024x768@60 1600x1200@60 1280x720@50 1680x1050@60 1280x720@60 1680x1050@60 RB 1280x800@60 1920x1080@50 1280x800@60 RB 1920x1080@60 1366x768@60 1920x1200@60 RB 1366x768@60 RB The default setting is **Auto (follows input)**.
Volume	The **Volume** button toggles audio on and off. By default, the **Volume** button is enabled, showing three sound waves emanating from the speaker icon (🔊). Audio is not muted. To adjust the volume, drag the **Volume** slider to the left or to the right. The volume decreases when the slider is dragged to the left and increases when the slider is dragged to the right. Values range from **-80** to **0** decibels. The default setting is **0**. To mute the audio, disable the **Volume** button by clicking the button. The red slash across the speaker icon (🔇) indicates that audio is muted.

3. Use the transport buttons to control streaming as appropriate:

- Begin streaming by selecting the **Start** button (▶ Start). The button starts blinking green every 500 milliseconds while the DM-TXRX-100-STR sets up the stream. When the stream starts, the button becomes solid green. The **Status** field (read only) indicates that the stream started.

- Pause streaming by selecting the **Pause** button (⏸ Pause). The button starts blinking yellow every 500 milliseconds until the stream pauses. When the stream pauses, the button becomes solid yellow. The **Status** field (read only) indicates that the stream paused.

- Stop streaming by selecting the **Stop** button (⏹ Stop). The button starts blinking red every 500 milliseconds until the stream stops. When the stream stops, the button becomes solid red. The **Status** field (read only) indicates that the stream stopped.

Configuring On-Screen Display Settings

On-screen display settings can be configured to allow text to be overlaid on the connected display. Text can be overlaid for purposes such as labeling the video or displaying instructions, schedules, or alerts.

To configure text overlay settings, do the following:

1. In the navigation bar, click **ON-SCREEN DISPLAY**. The On-Screen Display page opens.

On-Screen Display Page
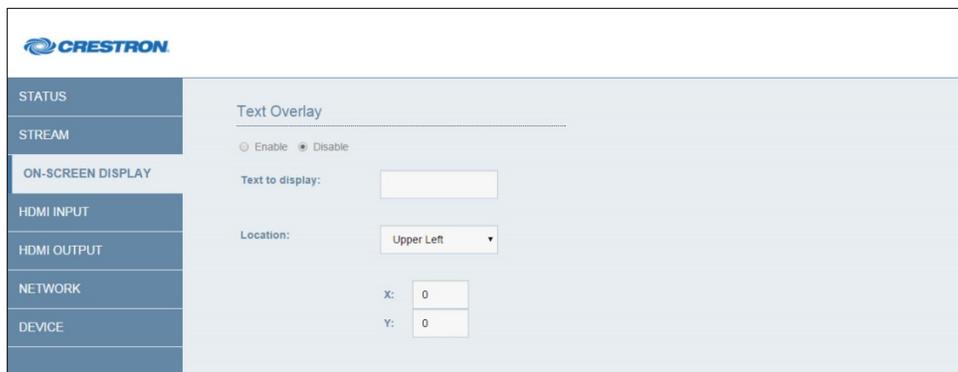
2. Enable text overlay by clicking the **Enable** radio button if it is not already selected. By default, the **Disable** radio button is selected, preventing text from being overlaid on the connected display.

3. In the **Text to display** text box, enter the desired text.

4. In the **Location** drop-down list, select one of the following options to position the text on the display device: **Custom, Upper Left** (default setting), **Center Left, Lower Left, Upper Right, Center Right,** or **Lower Right**.

   If **Custom** is selected, enter the **X** (horizontal) and **Y** (vertical) coordinates in pixels to position the text on the display.

Configuring HDMI Input Settings

HDMI input settings can be configured to enable or disable HDCP (High-bandwidth Digital Content Protection) and to select the desired EDID file. Five built-in EDID files are available for selection, and custom EDID files can also be selected. In addition, information about the HDMI input signal can be viewed.

To configure HDMI input settings, do the following:

1. In the navigation bar, click **HDMI INPUT**. The HDMI Input page opens.

    HDMI Input Page—Input Settings
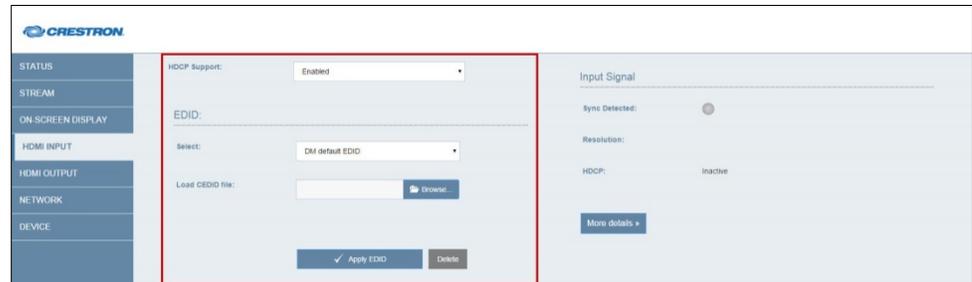
2. In the **HDCP Support** drop-down list, select **Disabled** or **Enabled**. The default setting is **Enabled**.

    NOTE: In order for HDCP streaming to occur, the **Transport Mode** configuration item on the Stream page must be set to **MPEG2TSRTP** or **MPEG2TSUDP** (refer to pages 9 and 10 for information about **Transport Mode** settings.

3. In the **EDID** section of the page, do the following:

    a. In the **Select** drop-down list, select the desired EDID file or select **Custom**. By default, the available selections, which include the five built-in EDID files, are as follows:

    > DM default EDID (Default setting)
    > Laptop 16x10 1280x800 2CH
    > Laptop 16x9 1080P 2CH
    > Laptop 16x9 1080P50 2CH
    > Laptop widescreen 2CH
    > Custom…

    If an EDID file in the **Select** drop-down list is selected, continue with step 3b. If **Custom** is selected, omit step 3b and continue with step 3c.

    b. (Applicable only when an EDID file is selected) Do the following:

    i. Click the **Apply EDID** button. The Apply EDID message box appears, asking for confirmation that the EDID be applied.

    ii. Click **Yes** to apply the EDID. When the EDID is applied successfully, the Apply EDID message box appears indicating success.

    iii. Close the Apply EDID message box by clicking the **X** in the upper right-hand corner of the box.

c. (Applicable only when **Custom** is selected) Do the following:

    i. Click the **Browse** button located to the right of the **Load CEDID file** field. Windows Explorer opens.

    ii. Locate and select the desired EDID file (*.cedid), and then click the **Open** button.

> NOTE: Only 2-channel LPCM audio is supported. Multichannel audio is not supported and, therefore, will be muted.

    The selected EDID file appears in the **Load CEDID file** field.

    iii. Click the **Send EDID** button to send the EDID to the input device. The SEND EDID message box appears, asking for confirmation that the EDID be sent to the input device.

    iv. Click the **Start** button to send the EDID file to the input device. The Send EDID message box appears indicating success.

    v. Close the Send EDID message box by clicking the **X** in the upper right-hand corner of the box.

The custom EDID file is added to the **Select** drop-down list.

To delete a custom EDID file from the **Select** drop-down list, do the following:

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

1. In the **Select** drop-down list, select the custom EDID file to be deleted.

2. Click the **Delete** button. The Delete EDID message box appears, asking for confirmation that the EDID be removed.

3. Click **Yes** to delete the EDID. The Delete EDID message box appears indicating success.

4. Close the message box by clicking the **X** in the upper right-hand corner of the box.

The custom EDID file is deleted from the **Select** drop-down list.

The HDMI Input page also displays information about the HDMI input signal in the **Input Signal** section of the page.

HDMI Input Page—Input Signal Information
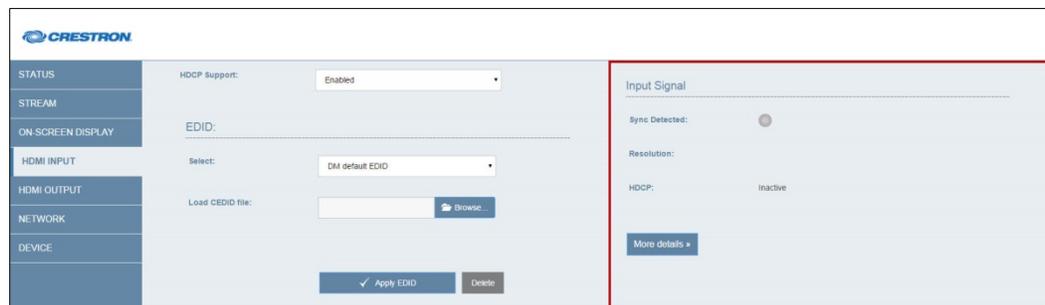
The following information is displayed in the **Input Signal** section of the HDMI Input page:

- **Sync Detected:** Specifies whether a source is detected at the HDMI input:
  - A green icon indicates that a source is detected.
  - A gray icon indicates that a source is not detected.
- **Resolution:** Specifies the current resolution of the input signal
- **HDCP:** Specifies whether HDCP is active or inactive

To view additional details about the input signal, click the **More details >>** button. To view fewer details about the input signal, click the **Fewer details<<** button.

Configuring HDMI Output Settings

The HDMI output can be enabled or disabled. In addition, the output resolution and the enabling of HDCP can be configured. Information about the HDMI output signal can also be viewed.

To configure HDMI output settings, do the following:

1. In the navigation bar, click **HDMI OUTPUT**. The HDMI Output page opens.

   HDMI Output Page—Output Settings
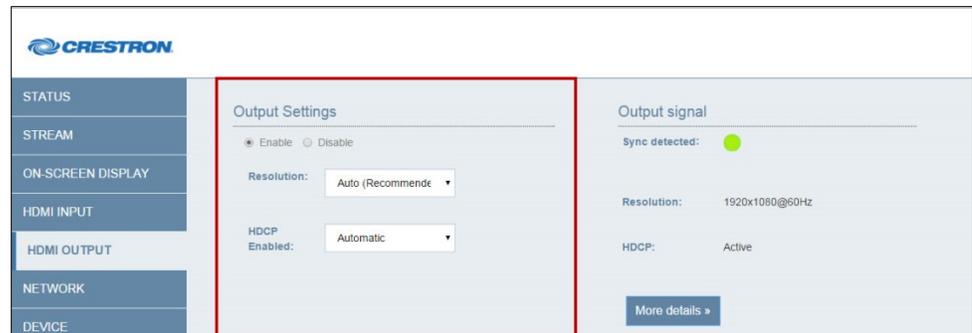
2. Enable or disable the HDMI output by selecting the **Enable** or **Disable** radio button, respectively. By default, the **Enable** radio button is selected, allowing the output display to turn on. If the **Disable** radio button is selected, the output display turns off.

3. In the **Resolution** drop-down list, select the desired resolution of the HDMI output. The following settings are available:

   NOTE: In the following list, *RB* denotes *Reduced Blanking*.

Auto (Recommended)	1440x900@60
640x480@60	1440x900@60 RB
800x600@60	1600x900@60 RB
1024x768@60	1600x1200@60
1280x720@50	1680x1050@60
1280x720@60	1680x1050@60 RB
1280x800@60	1920x1080@50
1280x800@60 RB	1920x1080@60
1366x768@60	1920x1200@60 RB
1366x768@60 RB	

   The default setting is **Auto (Recommended)**.

4. In the **HDCP Enabled** drop-down list, select one of the following:

- **Automatic:** (Default setting) Allows HDCP to be enabled for the output only when the input requires HDCP. If the input does not require HDCP, HDCP is disabled for the output.

- **Always Enabled:** Allows HDCP to always be enabled for the output regardless of the input requirements.

The HDMI Output page displays information about the HDMI output signal in the **Output Signal** section of the page.

HDMI Output Page—Output Signal Information
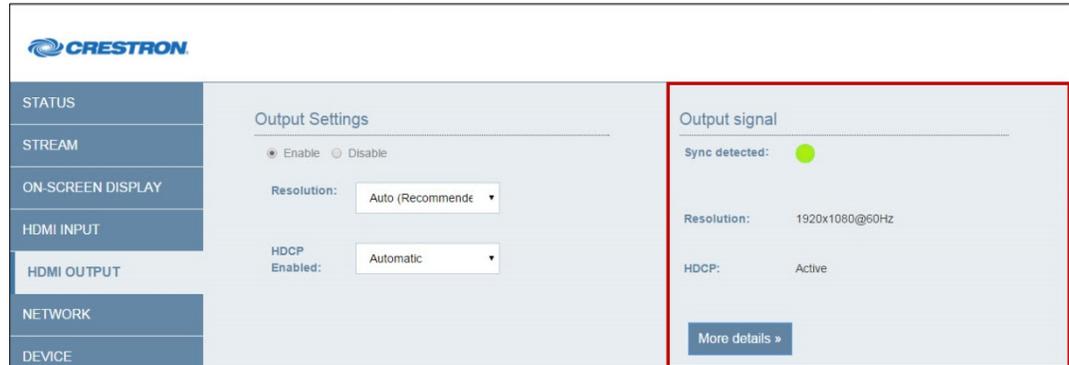
As shown above, the following information is displayed:

- **Sync Detected:** Specifies whether the HDMI output signal is detected by the connected display:

  o A green icon indicates that the HDMI output signal is detected.

  o A gray icon indicates that the HDMI output signal is not detected.

- **Resolution:** Specifies the current resolution of the HDMI output signal

- **HDCP:** Specifies whether HDCP is active or inactive

To view additional details about the output signal, click the **More details>>** button. To view fewer details about the output signal, click the **Fewer details<<** button.

Configuring Network Settings

To configure network settings, do the following:

1. In the navigation bar, click **NETWORK**. The Network page opens.

Network Page

2. Configure network settings. Refer to the following table for configuration guidelines.

Network Configuration Guidelines

CONFIGURATION ITEM	GUIDELINES
Host Name	Specifies the host name that identifies the DM-TXRX-100-STR on the network. The default host name is DM-TXRX-100-STR-*xxxxxxxxxxxx*, where *xxxxxxxxxxxx* is the MAC address of the DM-TXRX-100-STR.
	Overwrite the existing host name in the **Host Name** text box 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	Specifies a domain name.
DHCP	Specifies whether the IP address of the DM-TXRX-100-STR is to be assigned by a DHCP (Dynamic Host Configuration Protocol) server. To set the IP address, click either of the following radio buttons:
	• **Obtain an IP address automatically:** (Default setting) Allows the IP address of the DM-TXRX-100-STR to be automatically assigned by a DHCP server on the local area network (LAN) for a predetermined period of time.
	• **Use the following IP address:** Allows a static IP address and associated network settings to be configured for the DM-TXRX-100-STR:
	o **IP address:** Enter a unique IP address for the DM-TXRX-100-STR.

(Continued on following page)

Network Configuration Guidelines

CONFIGURATION ITEM	GUIDELINES
DHCP (Continued)	o **Subnet Mask:** Enter the subnet mask that is set on the network. o **Default Gateway:** Enter the IP address that is to be used as the network's gateway. o **DNS Server:** Enter the IP address of the primary DNS server.

3. Do either of the following:

- To save the current entries, click the **Save** button. The DM-TXRX-100-STR automatically reboots.

- To revert to the previous settings without saving the current entries, click the **Revert** button.

Configuring Device Settings

Configuration and management of device settings consist of the following:

- Controlling the display of the LEDs

- Connecting the DM-TXRX-100-STR to a control system

- Upgrading firmware

- Restoring factory default settings

- Rebooting the DM-TXRX-100-STR

- Downloading device logs

- Changing the password
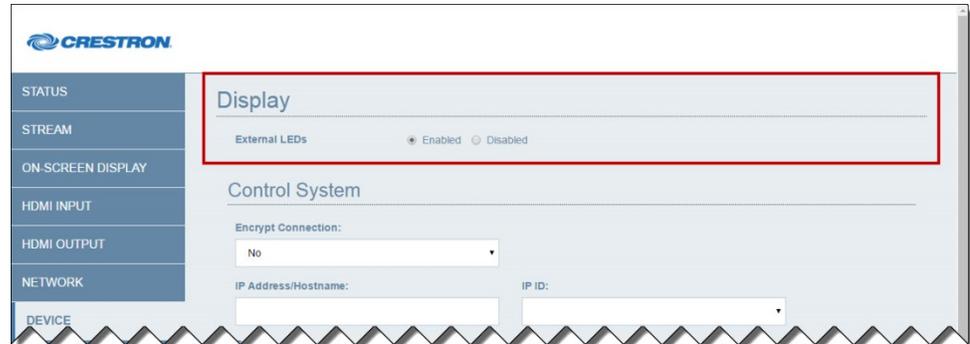
Controlling the Display of the LEDs

The LEDs on the DM-TXRX-100-STR can be enabled or disabled.

NOTE: When the LEDs are disabled, all LEDs—including the power and Ethernet LEDs—turn off. The DM-TXRX-100-STR appears as though it is not powered on; however, the device remains powered on and continues to function.

To control the display of the LEDs, do the following:

1. In the navigation bar, click **Device**. The Device page, which includes a **Display** section, opens.

Device Page—Display

2. In the **Display** section of the page, do either of the following:

- To enable the display of the LEDs, click the **Enabled** radio button if it is not already selected. By default, the LEDs are enabled.

- To disable the display of the LEDs, click the **Disabled** radio button. Although the LEDs become disabled, the DM-TXRX-100-STR continues to function.

Connecting the DM-TXRX-100-STR to a Control System

To connect the DM-TXRX-100-STR to a control system, do the following:

1. In the navigation bar, click **DEVICE**. The Device page, which includes a **Control System** section, opens.

Device Page—Control System

2. In the **Control System** section of the page, do the following:

a. In the **Encrypt Connection** drop-down list, select **No** or **Yes**. The default setting is **No**.

b. In the **IP Address/Hostname** text box, enter the IP address or host name of the control system.

c. In the **IP ID** text box, enter the IP ID of the control system. Valid values range from **03** to **FE** in hexadecimal notation.

d. Do either of the following:

- To save the current entries, click the **Save** button. The Control System Save message box appears, indicating that the control system settings were saved successfully.

- To revert to the previous settings without saving the current entries, click the **Revert** button.

The **Status** field (read only) displays the connection status of the DM-TXRX-100-STR to the control system as **Offline** or **Online**.

Upgrading Firmware

To upgrade firmware of the DM-TXRX-100-STR, do the following:

1. In the navigation bar, click **DEVICE**. The Device page, which includes a **Firmware** section, opens.

Device Page—Firmware

The **Firmware** section displays the following information about the DM-TXRX-100-STR:

- Model, which is **DM-TXRX-100-STR**

- Serial Number

- Firmware Version

2. To upgrade the firmware, click the **Upload firmware file** radio button or the **Use service port** radio button:

- If the **Upload firmware file** radio button is selected, do the following:

  a. Click the **Browse** button.

  b. Locate and select the desired firmware file (*.zip), and then click the **Open** button. The **Upload firmware file** field displays the firmware filename.

  c. Click the **Load** button. A message appears, indicating that the DM-TXRX-100-STR will reboot.

  d. Click **OK** to reboot the device.

- If the **Use service port** radio button is selected, do the following:

   a. Insert a USB mass storage device containing the firmware file into the SERVICE port of the DM-TXRX-100-STR.

   b. Click the **Load** button. A message appears, indicating that the DM-TXRX-100-STR will reboot.

   c. Click **OK** to reboot the device.

Restoring Factory Default Settings

To restore factory default settings, do the following:

1. In the navigation bar, click **Device**. The Device page, which includes a **Device Management** section, opens.

   Device Page—Device Management, Restore
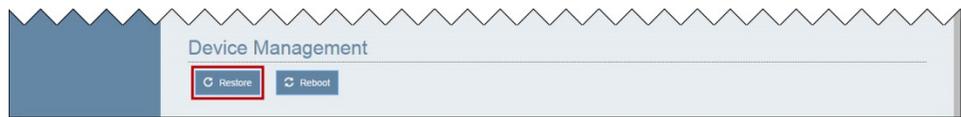
2. Click the **Restore** button. The Restore message box appears, asking for confirmation that the device be restored to factory default settings.

   NOTE: When settings are restored, all settings—including the network settings—revert to the factory default settings. If a static IP address is set, restoring the device to factory default settings reverts the IP address to DHCP mode, which is the factory default IP address setting (refer to "Configuring Network Settings" on page 18).

3. Click **Yes** to restore factory default settings. The Restore message box appears, indicating that the Restore process was successful and that the device rebooted.

4. Close the message box by clicking the **X** in the upper right-hand corner of the box.

Rebooting the DM-TXRX-100-STR

To reboot the DM-TXRX-100-STR, do the following:

1. In the navigation bar, click **Device**. The Device page, which includes a **Device Management** section, opens.

   *Device Page—Device Management, Reboot*
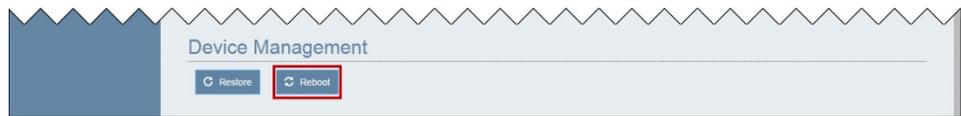
2. Click the **Reboot** button. The Reboot message box appears, asking for confirmation that the device be rebooted.

3. Click **Yes** to reboot the device. The Reboot message box appears, indicating that the device is rebooting.

Downloading Device Logs

To download device logs for troubleshooting purposes, do the following:

1. In the navigation bar, click **Device**. The Device page, which includes a **Device Logs** section, opens.
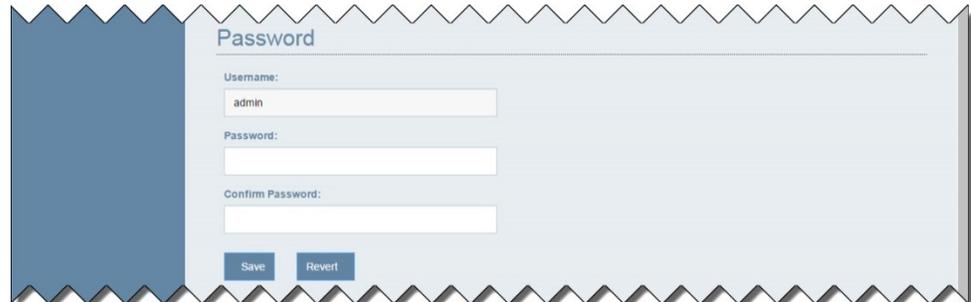
Device Page—Device Logs
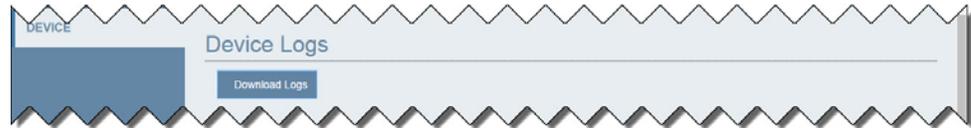
2. Click the **Download Logs** button. A logs file (*.tgz) is downloaded to the PC or mobile device.

Changing the Password

To change the password, do the following:

1. In the navigation bar, click **Device**. The **Device** page, which includes a **Password** section, opens.

Device Page—Password

2. In the **Password** section of the page, do the following:

NOTE: The password is case sensitive.

   a. In the **Password** text box, enter the desired password.

   b. In the **Confirm Password** text box, reenter the desired password to confirm the password.

   c. Do either of the following:

   - To save the password, click the **Save** button. A message appears, indicating that the password was saved successfully.

   - To revert to the previous setting without saving the current entry, click the **Revert** button.