

Makito X Decoder Quick Start Guide

Makito X Decoder 2.3



This Quick Start Guide summarizes the steps required to install and configure the Makito X decoder (single-height or dual-height chassis) to set up video decoding from a Haivision encoder (Makito X, Makito “Classic”, or Hai1000/Piranha) or a third party compatible encoder.

For detailed configuration and operation information, please refer to the *User's Guide* (available at <https://doc.haivision.com>). For the default credentials, refer to the *Important Notice* document (postcard shipped with the appliance or available on the Haivision Support Portal at <http://support.haivision.com>). For information on the MB6 (6-slot) or MB21 (21-slot) chassis, refer to the [MB Chassis Installation Guide](#).

Installing the Decoder

1. Unpack the box and visually inspect the package contents for any evidence of shipping damage. [See the *Important Notice* document in the box for list of contents.]
2. Install the Makito X as a desktop unit on a flat, well-ventilated surface.

Before You Begin

Use the following guidelines when unsafe conditions exist or when potentially hazardous voltages are present:

- Always use caution and common sense.
- To reduce the risk of electrical shock, do not operate equipment with the cover removed.
- Repairs must be performed by qualified service personnel only.

Improper handling and/or installation practices of sensitive equipment may VOID the warranty.

⚠ Caution

When handling components, or when setting switch options, always use an antistatic wrist strap connected to a grounded equipment frame or chassis. *If a wrist strap is not available, periodically touch an unpainted metal surface on the equipment.* Never use a conductive tool, such as a screwdriver or a paper clip, to set switches.

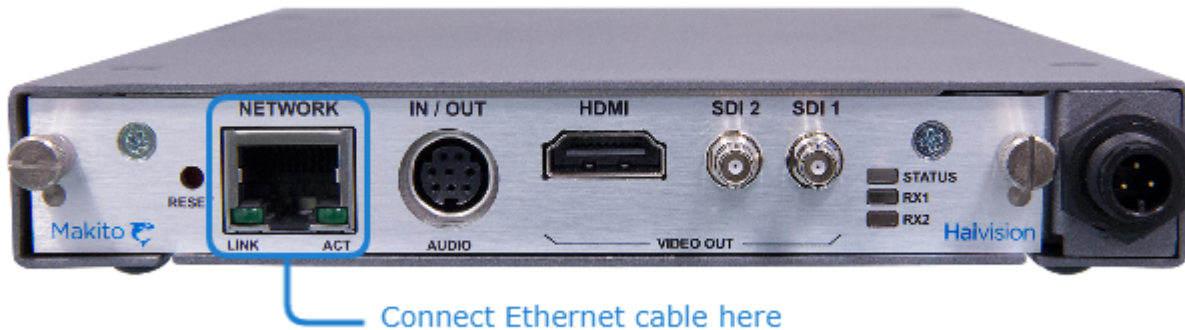
! Important

Refer to the [Safety Guidelines](#) and [Waste Electrical and Electronic Equipment \(WEEE\) Disposal](#) notice in the [User's Guide](#) (available at <https://doc.haivision.com>).

Connecting to the Network

To connect the Network Interface:

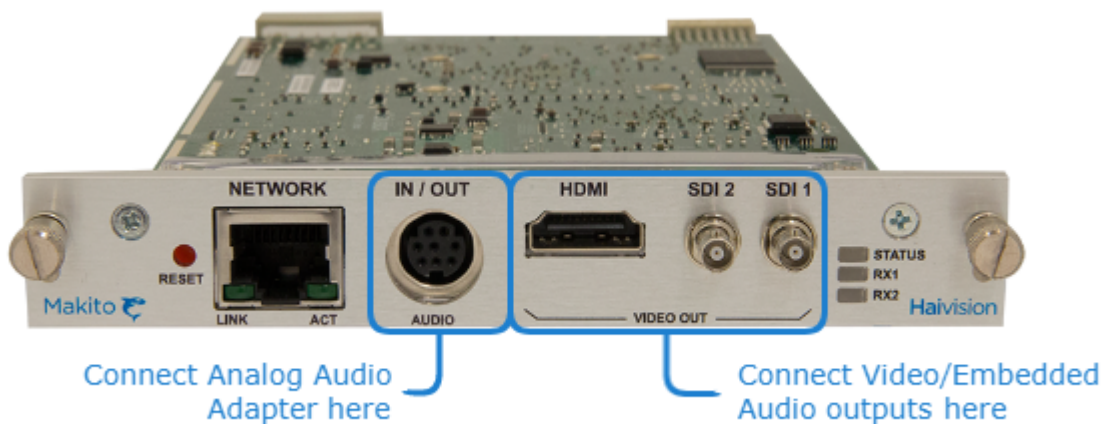
1. Connect the decoder's network port to the IP network using an Ethernet UTP cable (type Cat 5 or higher).
This will allow you to telnet to the unit or connect via the Web interface.



Connecting to A/V Displays

Note

The Makito X decoder supports two independent video decoders that feed the two SDI interfaces. The HDMI port can be configured to mirror the same content that is seen on either Decoder 1 or Decoder 2. If the stream contains (supported) computer graphics content, that content can only be displayed in its native format on the HDMI interface. All of the decoder's Video Output connectors are active, and both Analog Audio and Embedded Digital Audio are active. This means that the decoder is capable of simultaneously outputting analog and digital audio as well as both SDI and HDMI digital video.



To connect to Decoder to A/V Displays:

1. 3G-SDI Video Output with Embedded Audio:

Connect one or both of the decoder's SDI outputs to TV or display monitors, using the HD-BNC to BNC adapter cable(s) (included in package).



2. HDMI Video Output with Embedded Audio:

Connect the decoder's HDMI output to a TV or display monitor.

3. Analog Audio Output:

Connect the decoder's audio output to the audio sound system/speakers, using the RCA female to audio adapter (unbalanced shown below, included in package).



White - Channel 1 / Left Out
 Red - Channel 2 / Right Out
 Black - Talkback In

i Note

A balanced audio cable adapter is available from Haivision upon request. Please contact your sales representative or email Haivision at: sales@haivision.com

Powering Up the Decoder

Once all the cables are in place, the decoder is ready to be powered up.

⚠ Caution

To prevent damage to the Makito X and/or power supply, be sure to connect the power supply to the chassis first and then to the AC source. Always use the AC power cord and power supply provided with the unit. The single and dual-height chassis have different power supply units and chassis connectors.

ℹ Important

There is no power switch on the Makito X appliance. The power is automatically on when the unit is plugged in. When using the AC/DC power adapter, the power supply cord is used as the main disconnect device. Ensure that the AC socket outlet is located near the equipment and is easily accessible.

To power up the Single-Height or Double-Height Chassis:

1. Insert the 3-pin connector on the 12V power supply into the Power input jack at the rear of the decoder.
2. Connect the power cord to the power supply and plug the cord into a grounded AC power source. The status LED will start blinking green, indicating that the decoder is booting up.
3. Wait until the Status LED stays solid green, indicating that the decoder is ready for operation.

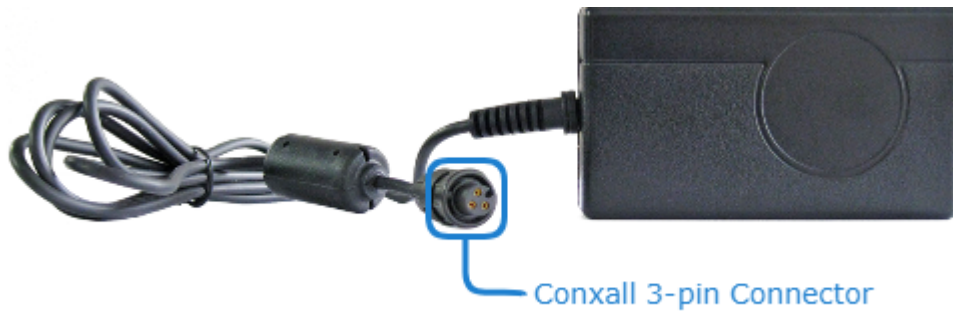
[Single-Height Chassis](#) [Dual-Height Chassis](#)

Single-Height Chassis

Rear View (#S-292D-HD2) showing Conxall 3-pin Locking Connector



Power Adapter 12VDC with Conxall 3-pin Connector



Single-Height Chassis [Dual-Height Chassis](#)

Dual-Height Chassis

Rear View (Dual-Channel HEVC #S-292D-HD2-HEVC)



Power Adapter 12VDC with HiRose 3-pin Connector



Accessing the Web Interface

1. Open a Web browser of your choice, such as Chrome, Firefox, Safari, or Internet Explorer.
2. Type the IP address for the decoder into the browser’s address bar and press Enter.

The Makito X comes pre-configured with the following default settings:

IP Address	Subnet Mask	Gateway
10.5.1.2	255.255.0.0	10.5.0.1

Note

To access the Web interface, your computer must be in the same IP Address range (subnet). You may have to temporarily change your computer’s IP Address to be in the same subnet as the decoder. Only then will you be able to access the decoder and change its IP address, and then afterwards change your computer’s IP address back. For details, see [Configuring Network Settings](#) in the User’s Guide.

- 3.

Note

The Makito X identity certificate and trusted root certificates may be managed from the Web interface (Certificates page) or using the CLI `certificate` command. See [Managing Certificates](#) in the User’s Guide.

4. Sign in to the Makito X Web interface, using the default administrative username and password.

Please refer to the *Important Notice* (postcard included in the box or available from the [Download Center](#) on the Haivision Support Portal) for the default sign-in credentials.

Important

Makito X Series devices ship from the factory with only the `admin` account enabled. For security reasons, the two default user accounts (`user` and `operator`) are locked at the factory as well as after a factory reset. An administrator must unlock them and change the passwords to use them for the first time.

Tip

For security purposes, be sure to change the default password! See [Changing Your Password](#) in the User’s Guide.

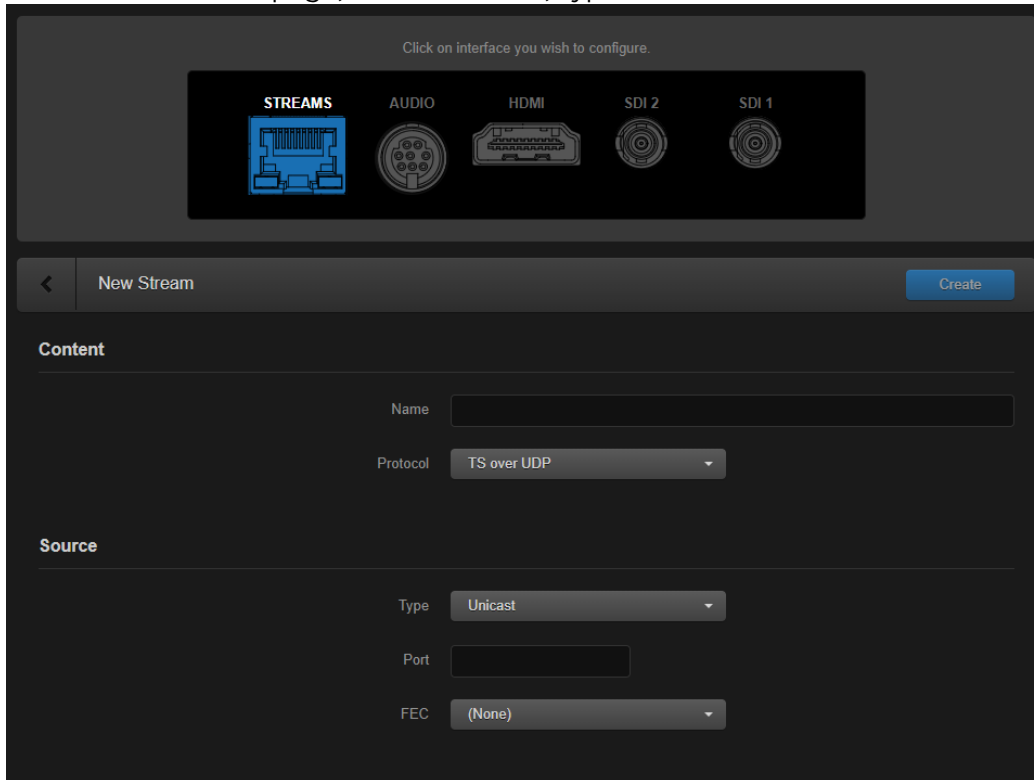
The Web interface opens to the Streams List View.



Setting Up Decoder Streams

The first step is to create one or more streams to map the decoder inputs to output interfaces.

1. On the Streams List View, click **+ Add** to add the first stream.
2. On the New Stream page, under Content, type a name for the stream in the Name field.

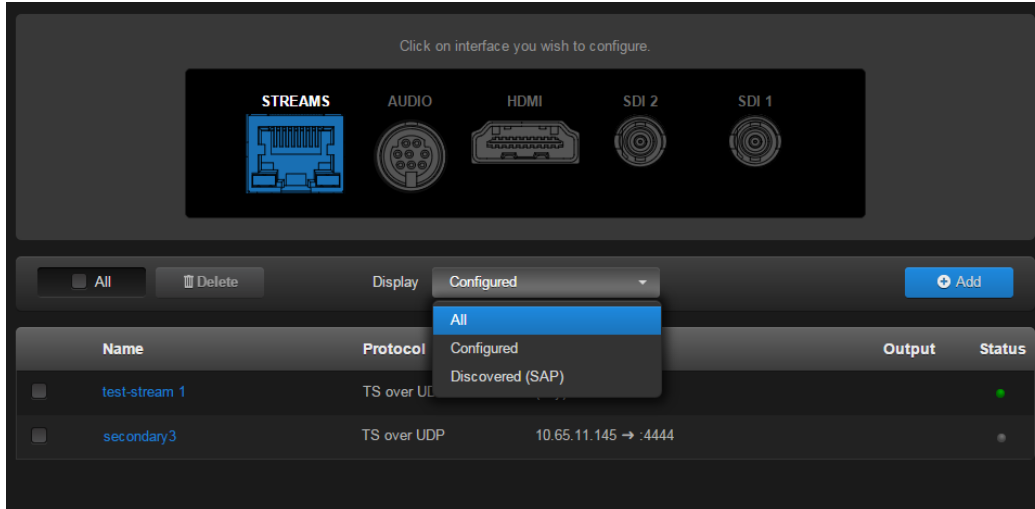


3. Select the stream Protocol, for example, **TS over UDP**.
4. Under Source, select the stream Type, either Unicast or Multicast.
5. For Multicast streams, type in the Multicast Address, for example, **225.2.2.2**.
6. Type in the Port number, for example, **5000**.
7. Click **Apply** to create the stream.
8. To add another stream, click **Streams** on the output interface navigation bar to return to the Streams List View, and click **+ Add** again. Follow the previous steps (Step #3 - #8) to configure the second stream.

The Streams List View now shows the streams you have created.

Tip

To display SAP-advertised streams, select “Discovered (SAP)” or “All” from the Display dropdown list (SAP listening must be enabled).

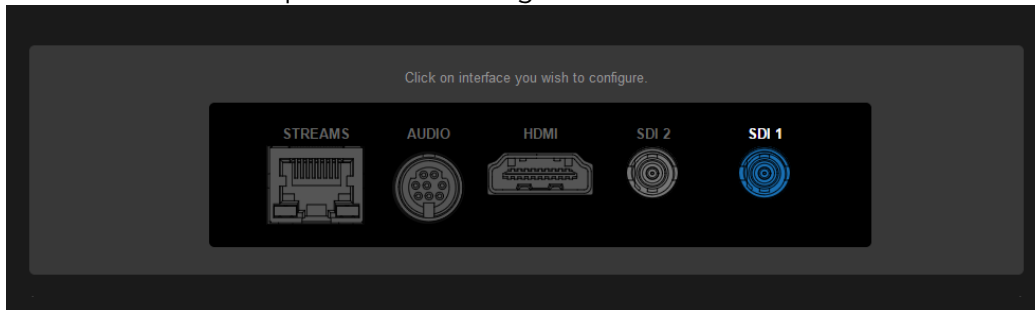


Configuring SDI Decoder Output

The next step is to bind the video output(s) to the stream(s) you have just created and configure the video decoder settings.

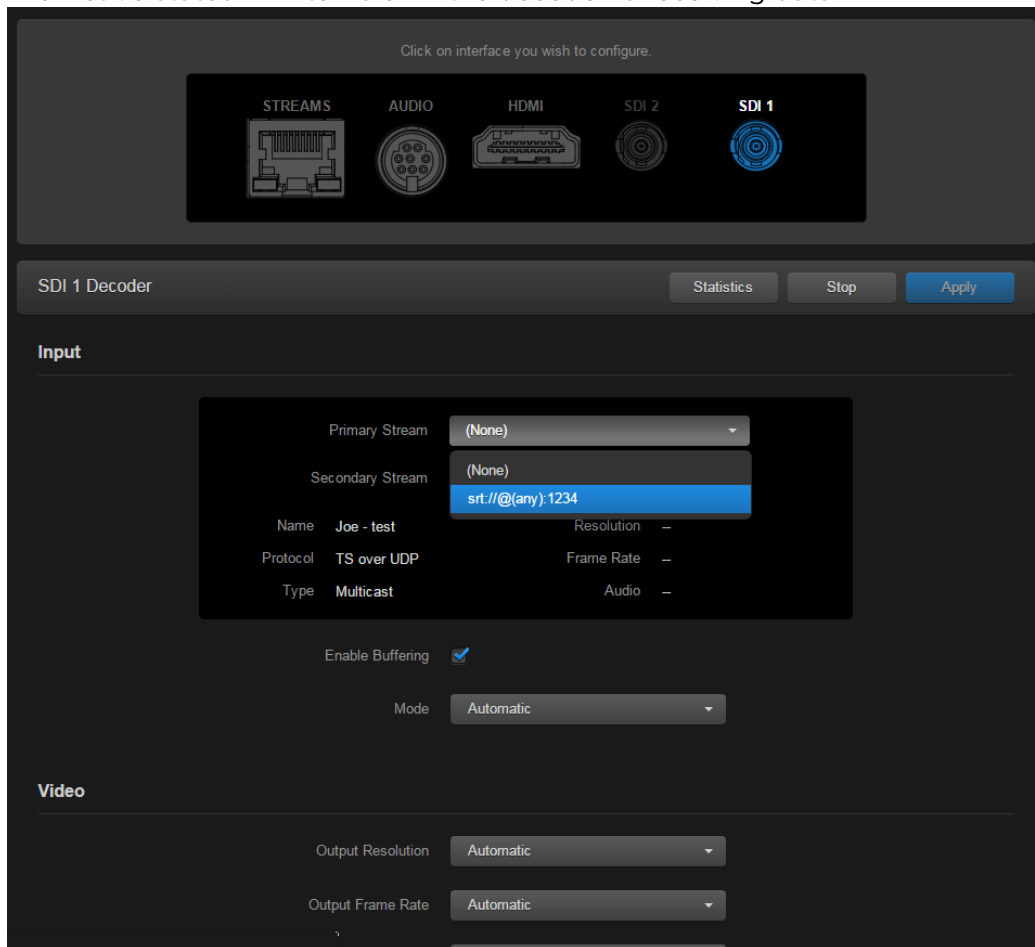
SDI 1 Output

1. Click **SDI 1** on the output interface navigation bar.



2. On the SDI1 Decoder page (shown below), under Input, select the Primary Stream from the dropdown list of configured stream(s) (or “SAP Discovered” streams if SAP listening is enabled). The Name, Protocol, Type, incoming Resolution, Frame Rate, and Audio Sampling Rate for the selected stream are now displayed.

The Active status LED turns on if the decoder is receiving data.

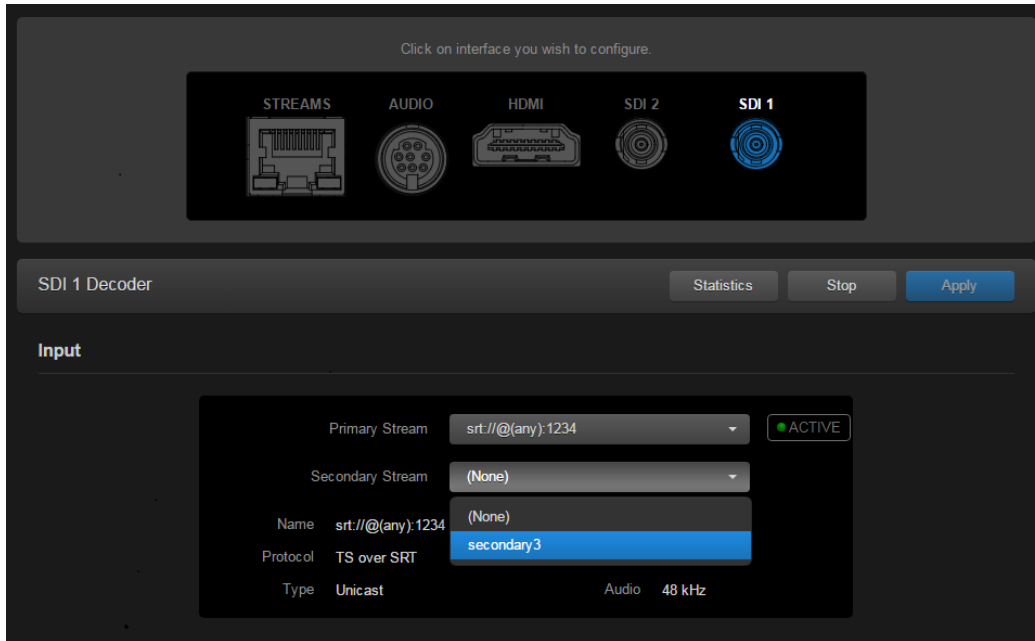


3.

Note

* The decoder will display the Still Image if it is no longer receiving video (for example, if the encoder stream has stopped or the network connection is lost).

- (Optional, only if an alternate stream is required) To configure stream failover, select a Secondary Stream for the decoder channel.



Note

For details on setting up an alternate stream, please refer to [Configuring Decoder Outputs](#) in the User's Guide.

- To apply your changes, click **Apply**. After you click **Apply**, you can scroll down to view a status summary of SDI Audio inputs and sampling rates, and metadata.

Tip

To refresh the status, click **SDI 1** again.

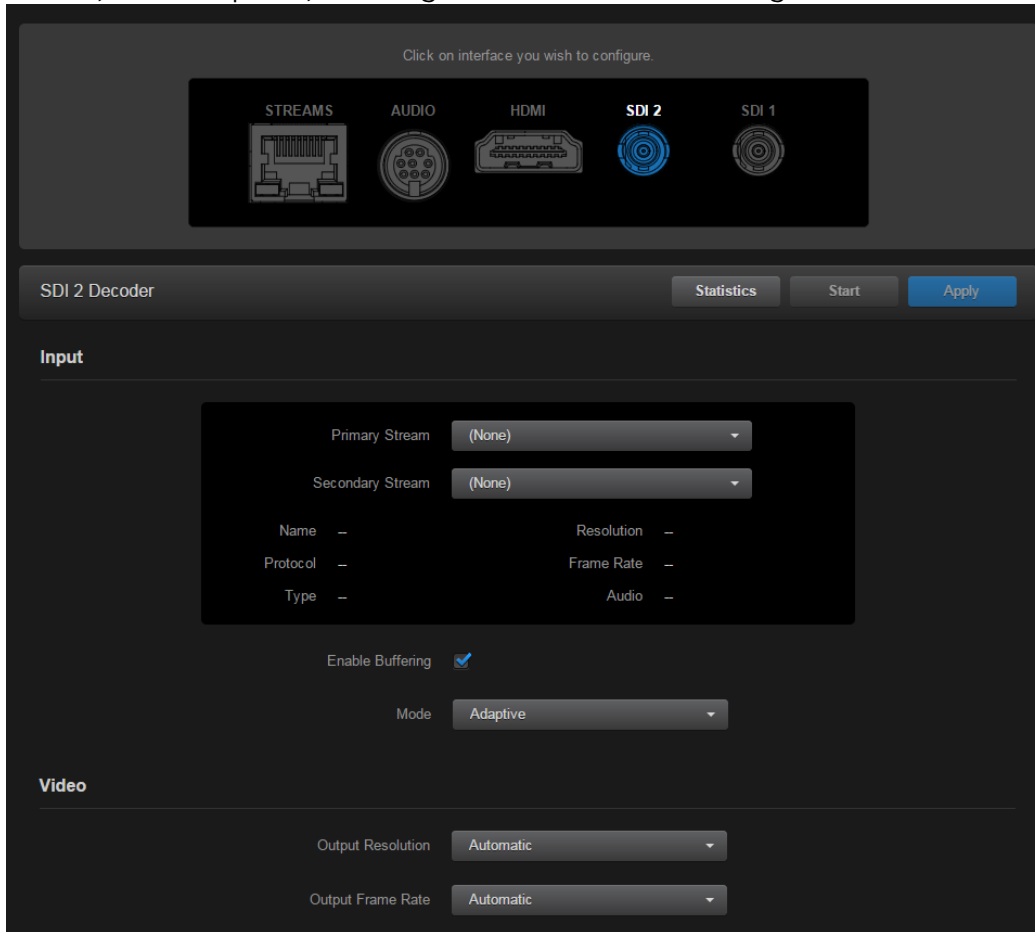
- To start or stop video decoding, click **Start** or **Stop** (as applicable).
- To view statistics for the decoder, click **Statistics**. The Streams List View now shows the Output for the streams you have created.

SDI 2 Output

Note

When the decoder is licensed for one channel only, the SDI2 option is not available.

1. Click **SDI 2** on the output interface navigation bar.
2. On the SDI 2 Decoder page, follow the steps in [Configuring SDI Decoder Output](#) to select the Input Stream, and if required, to change the default video settings.



3. To apply your changes, click **Apply**.
4. To start or stop video decoding, click **Start** or **Stop** (as applicable).
5. To view statistics for the decoder, click **Statistics**.

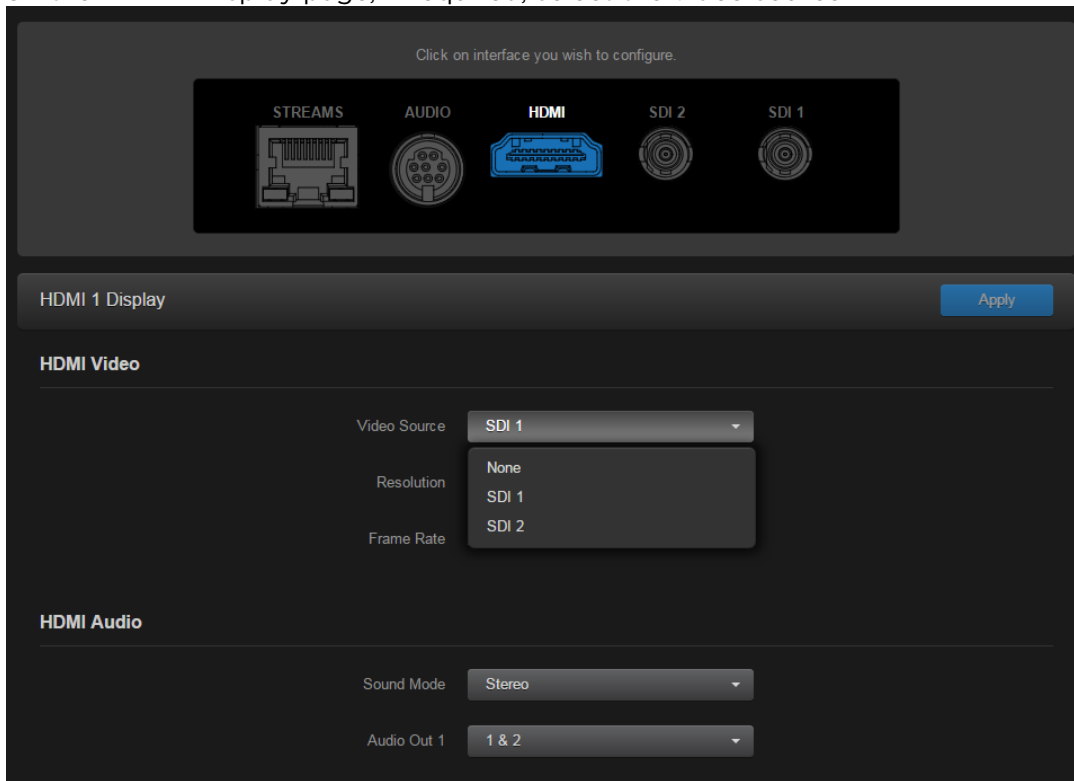
Configuring the Decoder HDMI Display

Note

By default, HDMI displays the SDI 1 content, so you only need to change the HDMI setting to monitor the SDI 2 channel.

HDMI Output

1. Click **HDMI** on the output interface navigation bar.
2. On the HDMI 1 Display page, if required, select the video source.



3. To play streams containing multiple audio channel pairs as surround sound over the HDMI interface, select "Surround" for the Sound Mode.
4. For HDMI Audio (Stereo Sound Mode), select which audio source to play on the HDMI audio channels, either **1&2** , **3&4** , **5&6** , or **7&8** . The default audio source is the first pair in the input stream.
5. To apply your changes, click **Apply**.

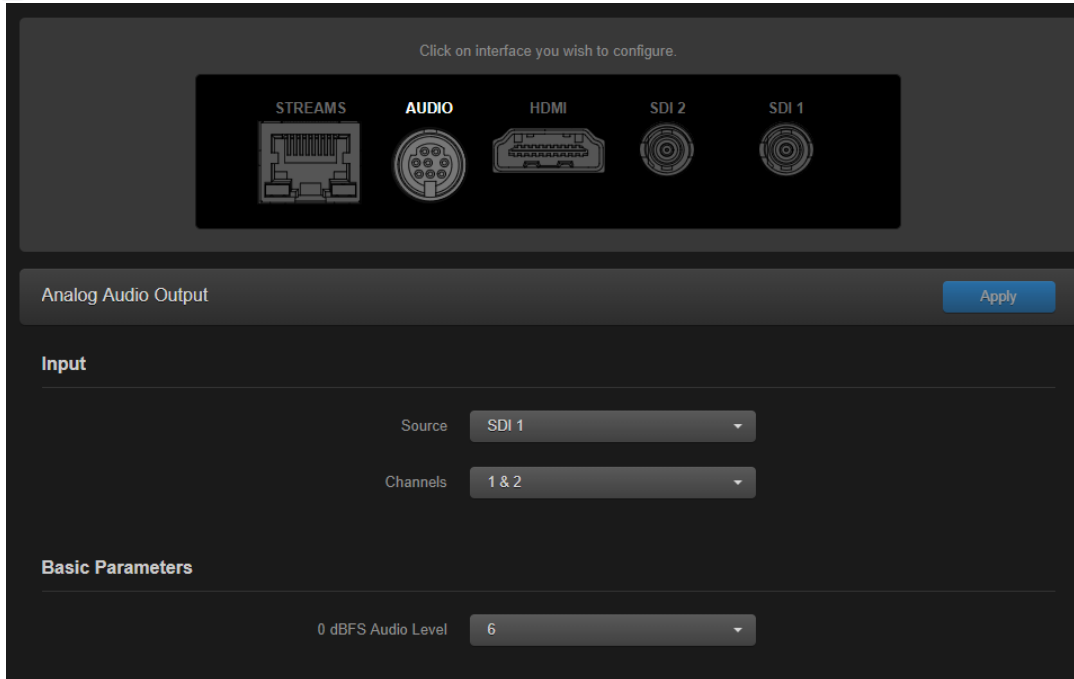
Configuring Analog Audio Output

On the Makito X dual channel decoder, two streams are received and can be displayed on either SDI video port. Analog audio can be selected from embedded channels on either stream. Both Analog Audio and Embedded Digital Audio are active.

The final configuration step is to bind the analog audio output to either the SDI1 or SDI2 video decoder and configure the audio decoder settings.

To configure the analog audio output:

1. Click **AUDIO** on the output interface navigation bar.
2. On the Audio Audio Output page, select the Input Source for the analog audio, either **SDI1** or **SDI2**.



3. Select the channel pairs for the output, either **1&2** , **3&4** , **5&6** , or **7&8** . For details, see [Analog Audio Settings](#) in the User’s Guide.

Note

Channel pairs **9&10** , **11&12** , **13&14** , and **15&16** are also available when the decoder is a single channel variant.

4. To apply your changes, click **Apply**. Analog audio output is started or stopped depending on the status of the SDI1 or SDI2 video decoder.

Starting to Decode


Once you have bound the video and audio to your streams, the decoder is ready to start decoding.

1. (If not already created) Create a stream from a Haivision encoder (Makito X, Makito/Barracuda, or Hai1000/Piranha) with this decoder as the destination. [Make sure the encoder is on the same network segment.]
2. Start the stream from the encoder and you should see video on your decoder displays.
3. Click the **Statistics** button on the SDI Decoder Output page for helpful information about the decoding session.

Note

In order to optimize your decoder's performance, it is recommended that *only* the required network services be enabled. Please review the network services to make sure services used for your application are enabled or disabled as appropriate. See [Enabling and Disabling Network Services](#) in the User's Guide.

Important

Clicking **Apply** does not save your changes and they will be lost after a reboot. Saving configurations as presets provides a way for you to save groups of settings and apply them to other streams. A warning indication  appears in the title bar on systems with unsaved configurations. For more information, see [Saving and Loading Presets](#) in the User's Guide.

Obtaining Documentation

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