AT-OME-CS31-SA Series

3x1 Video Switcher with Audio Mixer & Amplifier

Instructions for Use — Addendum

LumaStream Decoding Support

Firmware v1.0.2 and later

Version 1.0 · September 18, 2026

This addendum supplements — and does not replace — the AT-OME-CS31-SA Instructions for Use.

About This Addendum

This addendum documents LumaStream decoding support added to the AT-OME-CS31-SA Series. It supplements the AT-OME-CS31-SA Instructions for Use and describes only what changed; every other instruction in the Instructions for Use remains in effect. Keep this addendum with the Instructions for Use for the installation.

Applicability

Applies To	AT-OME-CS31-SA AT-OME-CS31-SA-C AT-OME-CS31-SA-HDBT
Product Name	3x1 Video Switcher with Audio Mixer & Amplifier
Feature Added	LumaStream decoding — a network video stream is selectable as a video input on the switcher
Required Firmware	v1.0.2 or later. The same firmware applies to all three models.
Companion Encoder	HW-LUMA-E4211 LumaStream Encoder
Supplements	AT-OME-CS31-SA Instructions for Use

IMPORTANT: LumaStream decoding requires AT-OME-CS31-SA firmware v1.0.2 or later. Download the firmware from the product page and install it using the procedure in the AT-OME-CS31-SA Firmware Update instructions before following the steps in this addendum.

NOTE: No additional configuration is required on the switcher after the firmware update. The Stream source becomes available automatically.

Version Information

This section lists document revisions.

Version	Date	Notes
1.0	September 18, 2026	Initial release.

Sales & Customer Support

Main Office (US)	Hall Research, 1234 Lakeshore Dr Suite #150, Coppell, TX 75019
Support Hours	Monday – Friday, 8:00 a.m. – 6:00 p.m. (CST)
Website	https://www.hallresearch.com
Product Page (SA)	https://www.hallresearch.com/product/AT-OME-CS31-SA
Product Page (SA-C)	https://www.hallresearch.com/product/AT-OME-CS31-SA-C
Product Page (SA-HDBT)	https://www.hallresearch.com/product/AT-OME-CS31-SA-HDBT

IMPORTANT: Visit https://www.hallresearch.com/product/AT-OME-CS31-SA or https://www.hallresearch.com/product/AT-OME-CS31-SA-C or https://www.hallresearch.com/product/AT-OME-CS31-SA-HDBT for the latest firmware updates and Instructions for Use.

Warranty

To view the product warranty, use the following link: https://hallresearch.com/warranty

LumaStream Decoding

Overview

Firmware v1.0.2 adds a LumaStream decoder to the AT-OME-CS31-SA Series. Once the firmware is installed, a new video source labelled Stream appears alongside the switcher's physical video inputs. The switcher decodes a LumaStream video stream from the network and treats it exactly like any other input: it can be selected manually, set as the auto-switch fallback input, routed to the output, and queried for signal status.

LumaStream encoders publishing on the same network are discovered automatically and presented by stream name, so no multicast addresses need to be entered by hand in a typical installation.

Summary of Changes

- LumaStream decoding added to the AT-OME-CS31-SA Series.
- Requires firmware v1.0.2 or later.
- No additional switcher configuration is required after the update.
- A new Stream option is available in the Video input selection.
- Available LumaStream encoder streams are presented automatically for selection, by stream name or by multicast IP address and port.
- Audio from the decoded stream is available to the audio mixer when Stream is the selected input.
- The Stream input is identified as in4 in API commands.
- The CS31 profile on the HW-LUMA-E4211 encoder is the recommended, optimized profile for use with the AT-OME-CS31-SA Series.

> **NOTE:** The Stream input does not replace any existing input. The switcher's physical inputs and their behavior are unchanged.

Selecting a LumaStream Source

The Stream input is selected from the built-in web interface. Log in to the switcher with a web browser using the IP address shown on the front panel, then follow the steps below.

Routing the Stream Input to the Output

1. Click the A/V Routing tab in the web interface.
2. Under Video Outputs → Manual Switch, click Stream. The Stream button highlights and the decoded network stream is routed to the HDMI output.
3. Optionally, set Video Outputs → Auto Switch → Fallback Input to Stream so that the switcher falls back to the network stream when no physical input is active.

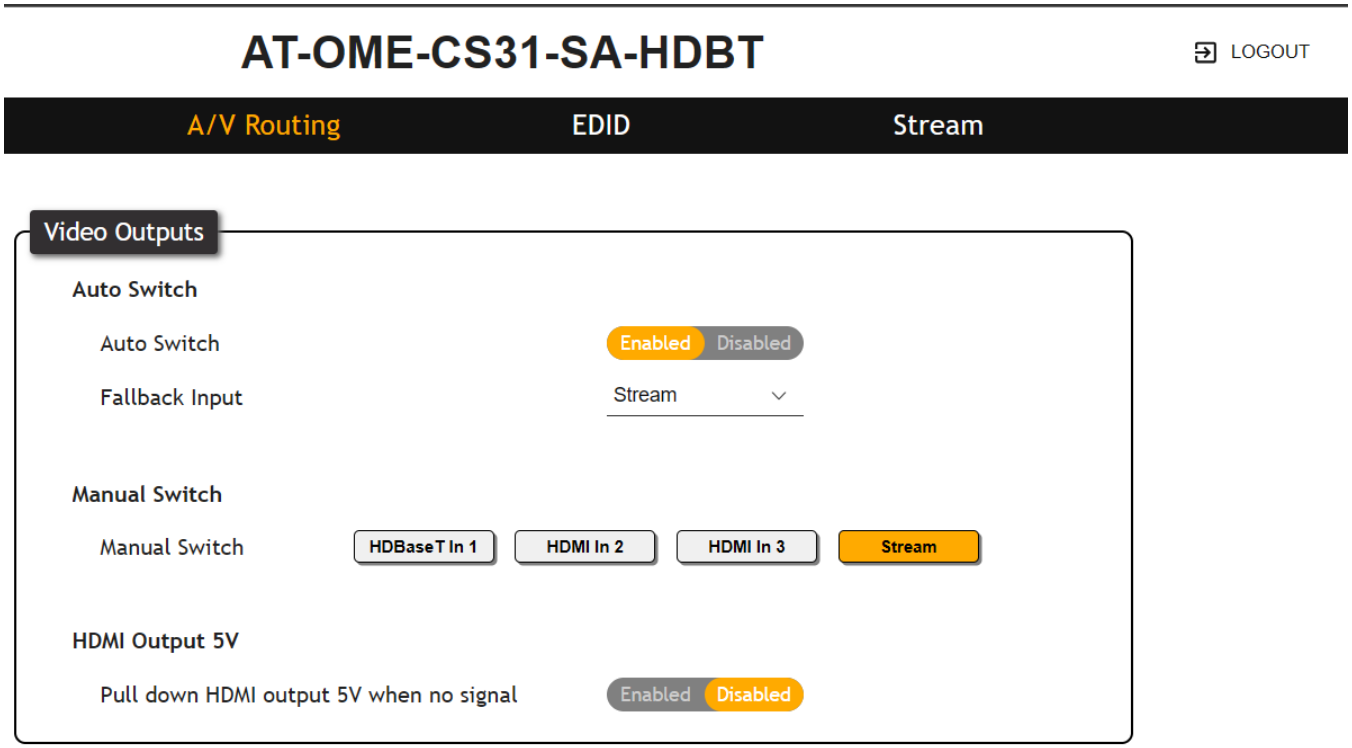


Figure 1 — A/V Routing page with Stream selected as the manual switch input and as the auto-switch fallback input

> **NOTE:** The input buttons shown on the A/V Routing page reflect the connectors fitted to the model in use. On the AT-OME-CS31-SA-HDBT shown above, the buttons are HDBaseT In 1, HDMI In 2, HDMI In 3 and Stream.

Choosing Which Stream to Decode

1. Click the Stream tab in the web interface.
2. Under Video Source, select By Source Name and choose the stream from the drop-down list. LumaStream encoder streams found on the network are listed by their stream names. The multicast IP address and port of the selected stream are shown beneath the list for reference.
3. Alternatively, select By Multicast IP:Port and type the multicast address and port of the stream, then click Save.

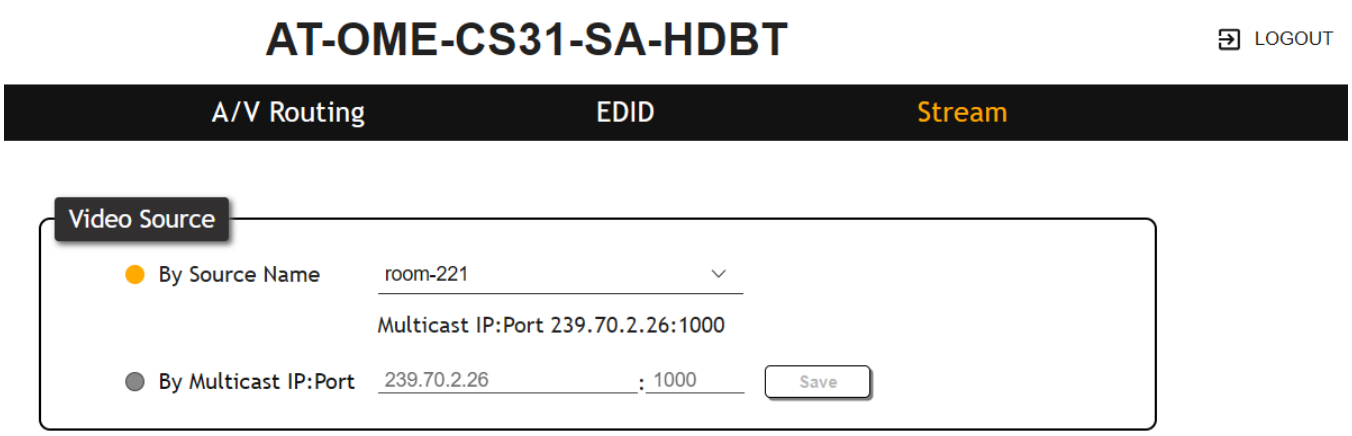


Figure 2 — Stream page, selecting the video source by stream name or by multicast IP address and port

Selection Method	Use When
By Source Name	The LumaStream encoder is on the same network and its stream name appears in the drop-down list. This is the recommended method.
By Multicast IP:Port	The stream is not discovered automatically, or the multicast address and port are assigned and managed by the network administrator.

Verifying the Decoded Stream

The Stream page reports the video and audio format of the stream currently being decoded. Use this to confirm that the switcher has locked to the intended source.

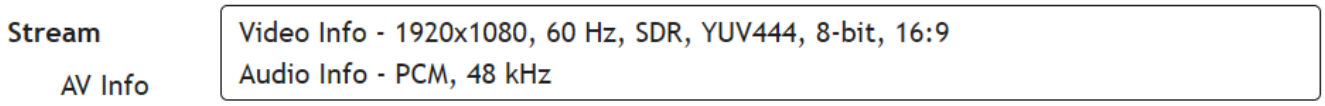


Figure 3 — Stream AV Info reporting the decoded video and audio format

NOTE: Audio carried by the decoded stream is available to the switcher's audio mixer while Stream is the selected input, in the same way as audio from the physical inputs.

Encoder Configuration

For best compatibility with the AT-OME-CS31-SA Series, select the CS31 profile on the HW-LUMA-E4211 LumaStream encoder that is sourcing the stream. The CS31 profile is the recommended profile and is optimized for use with the CS31 platform.

Refer to the HW-LUMA-E4211 Instructions for Use for the procedure to select an encoder profile.

> **IMPORTANT:** Using a profile other than CS31 on the HW-LUMA-E4211 may result in a stream the AT-OME-CS31-SA Series cannot decode, or in reduced video quality.

New and Changed API Commands

Firmware v1.0.2 adds two API methods for working with LumaStream sources and extends three existing methods to accept the Stream input. Wherever an input source designation is required, the Stream input is identified as `in4`.

Method	Status	Purpose
VideoStreamNameList.Get	New	Retrieve the list of LumaStream video streams available to the switcher.
SelectVideoStream.Set	New	Select the stream to decode, by stream name or by multicast IP address and port.
VideoSwitch.Set	Extended	Accepts in4 to route the Stream input to the output (manual switch).
VideoSwitchDefault.Set	Extended	Accepts in4 to set the Stream input as the auto-switch fallback input.
VideoInputStatus.Get	Extended	Accepts in4 to report signal status and format for the Stream input.

Command Format

All commands are JSON-RPC 2.0 and are sent over a Telnet, SSH, or WebSocket connection to the switcher. Refer to the AT-OME-CS31-SA Instructions for Use for connection details and authentication.

> **NOTE:** Every command and response in this section is a single line and is printed here exactly as it is sent and received, so it can be copied and pasted without reformatting. A long line wraps on the page for readability — the wrap is not part of the command.

VideoStreamNameList.Get (New)

Returns the LumaStream video streams currently available to the switcher. The names returned are the stream names published by the LumaStream encoders on the network, and are the values accepted by SelectVideoStream.Set.

Command

```
{ "jsonrpc": "2.0", "id": "VideoStreamNameListGetResults", "method": "VideoStreamNameList.Get" }
```

Response example

```
{ "jsonrpc": "2.0", "id": "VideoStreamNameListGetResults", "result": [ "minions", "LUMA-E4-0F0219",
"room-221" ] }
```

SelectVideoStream.Set (New)

Selects the stream the switcher decodes. Set `selecttype` to `0` to select by stream name, or to `1` to select by multicast address and port. The response reports the stream that is now selected, including both its name and its multicast address, so a controller can confirm the result of either method.

Selecting by Stream Name

Command

```
{ "jsonrpc": "2.0", "id": "SelectVideoStreamSetResults", "method": "SelectVideoStream.Set",
"params": { "selecttype": 0, "streamname": "minions" } }
```

Response example

```
{ "jsonrpc": "2.0", "id": "SelectVideoStreamSetResults", "result": { "multiaddr": { "ipaddr":
"239.70.2.24", "portnumber": 1000 }, "selecttype": 0, "streamname": "minions" } }
```

Selecting by Multicast Address

Command

```
{ "jsonrpc": "2.0", "id": "SelectVideoStreamSetResults", "method": "SelectVideoStream.Set",
"params": { "selecttype": 1, "multiaddr": { "ipaddr": "239.70.2.22", "portnumber": 1000 } } }
```

Response example

```
{ "jsonrpc": "2.0", "id": "SelectVideoStreamSetResults", "result": { "multiaddr": { "ipaddr":
"239.70.2.22", "portnumber": 1000 }, "selecttype": 1, "streamname": "" } }
```

> **NOTE:** When a stream is selected by multicast address, the response returns an empty stream name until the switcher has resolved the name of the stream at that address.

VideoSwitch.Set (Extended)

Routes an input to an output. The Stream input is selected by passing `in4` as the input.

Command

```
{ "jsonrpc": "2.0", "id": "VideoSwitchSetResults", "method": "VideoSwitch.Set", "params": { "in":
"in4", "out": "out1" } }
```

VideoSwitchDefault.Set (Extended)

Sets the auto-switch fallback input. Passing `in4` makes the decoded LumaStream source the fallback input.

Command

```
{ "jsonrpc": "2.0", "id": "VideoSwitchDefaultSetResults", "method": "VideoSwitchDefault.Set",
"params": "in4" }
```

VideoInputStatus.Get (Extended)

Reports signal status and video format for an input. Passing `in4` reports the status of the decoded LumaStream source.

Command

```
{ "jsonrpc": "2.0", "id": "VideoInputStatusGetResults", "method": "VideoInputStatus.Get", "params":
"in4" }
```

Response example

```
{ "id": "VideoInputStatusGetResults", "jsonrpc": "2.0", "result": { "cableconnection": "Connected",
"hdcp": "NO HDCP", "signal": "Valid", "signaltype": "HDMI", "source": "in4", "videoformat":
"1920x1080,60 Hz;SDR;YUV444;8-bit;16:9" } }
```