

# ANT-2551 / ANT-2554 help guide

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**Document** info

For further help and advice please contact Antrica on: Email: <a href="mailto:support@antrica.com">support@antrica.com</a>

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Version	date	author	Comments
0.1	12-Oct-22	David M	Initial release – input / output checks
0.2	8-Mar-23	David M	VLC decode settings
0.3	13-Jul-23	David M	Minor corrections



## 1. Information and setup

The guide is based on the firmware

version: v2.2.16\_20211110\_F60\_1\_release onvif version: version 2.6.24

To setup your ANT-2551 or ANT-2554 please refer to the HUDL website guides

https://www.hudl.com/support/hudl-sportscode/capture-1/set-up-a-live-capture/set-up-a-singleangle-capture-antrica

https://www.hudl.com/support/hudl-sportscode/capture-1/set-up-multi-angle-capture/

## 2. Input detected?

The ANT-2551 and ANT-2554 will auto detect the incoming video. The video must be 3G-SDI / HD-SDI Level A.

There are other types of 3G-SDI / HD-SDI which include level B which are not compatible with the ANT-2551 and ANT-2554 encoders.

For further information please see the following link as a starting point <u>https://www.aja.com/pdf/qa/Dual\_Link\_and\_3G\_Overview.pdf</u>

### 2.1. Webpage to check for input

To view the detect input information on the web page, click "Status" and then the "Video parameter" tab. From the example shown in Figure 1, the input is

Resolution**1920x1080**Display modei – for InterlacedFrame rate**50** 

If no input is detected then "Video parameters" will report 1920x1080p60. This is unhelpful if your input signal is 1920x1080p60.



	SDI Encod	er A			
C Status	Access address	Video parameters	Audio parameters	Hardware status	Preview
SDI status SDI 2nd status	Video Inpu	o size: 1920*1080i ut fps: 50			
Network	Encod	e fps: 25			

## 2.2. HTTP API to check for input

Using the HTTP API commands the view the status of the input HD-SDI.

The two commands will determine if the video is present and what is its format. These examples are using CURL (this has to be downloaded, one location is <u>https://curl.se/download.html</u>) as the tool to send the HTTP API commands.

The "Video Present?" command, as shown in section "2.2.1 Video present?" will show a **1** for no video and a **0** for video detected.

The resolution, display mode and frame rate can be found from the command shown in "2.2.2 Video format". **NOTE:** if no video is present the reported details will be 1920x1080p60

#### 2.2.1. Video present?

curl http://192.168.1.168/get\_ctl?type=video

If no video is detected the encoder will report **1** in the "no\_video" field, as shown below

```
C:\Users\work pc>curl http://192.168.1.168/get_ctl?type=video
<?xml version="1.0" encoding="UTF-8"?>
<video_ver>
<no_video>1</no_video>
</video ver>
```

If video is detected the encoder will report **0** in the "no\_video" field, as shown below

```
C:\Users\work pc>curl http://192.168.1.168/get_ctl?type=video
<?xml version="1.0" encoding="UTF-8"?>
<video_ver>
<no_video>0</no_video>
</video_ver>
```

#### 2.2.2. Video format

curl http://192.168.1.168/get\_ctl

If no video is detected the encoder is very likely to show 1920x108p60 as shown below

```
C:\Users\work pc>curl http://192.168.0.164/get ctl
<?xml version="1.0" encoding="UTF-8"?>
<status>
<url>rtsp://192.168.0.164:554/sdi</url>
<ext url>rtsp://192.168.0.164:554/sdi ext</ext url>
<onvif enable>1</onvif enable>
<lang>1</lang>
<video info>
<size>1920*1080p</size>
<fps_in><mark>60</mark></fps_in>
<fps cap>25</fps cap>
</video info>
<audio>
<channel>2</channel>
<sample>48000</sample>
<aenc size>929452032</aenc size>
</audio>
<chn stat>
<total>1137651</total>
<lost>12</lost>
</chn stat>
</status>
C:\Users\work pc>
```



If video is detected the encoder will show the video's details, in the example below it is  $1920 \times 1080$  i 50.

```
C:\Users\work pc>curl http://192.168.1.168/get ctl
<?xml version="1.0" encoding="UTF-8"?>
<status>
<url>rtsp://192.168.1.168:554/sdi</url>
<ext url>http://192.168.1.168:80/sdi ext</ext url>
<onvif enable>1</onvif enable>
<lang>1</lang>
<video info>
<size>1920*1080i</size>
<fps in><mark>50</mark></fps_in>
<fps cap>25</fps cap>
</video info>
<audio>
<channel>2</channel>
<sample>48000</sample>
<aenc size>70770688</aenc size>
</audio>
<chn stat>
<total>26908</total>
<lost>2</lost>
</chn stat>
</status>
```

## 3. Output video

## **3.1.** Streaming protocol

The required output protocol is likely to be RTSP, but this is configurable in the encoder.

To determine the current setting of the encoder, go to the web page click "Status" and then the "Access Address" tab. In the example shown in Figure 2 the Access Address, or URL, is

rtsp://192.168.1.168:554/sdi

A 1		SDI Encoder A				
Q	Status	Access address	Video parameters	Audio parameters	Hardware status	Preview
	SDI status SDI 2nd status	Access address	rtsp://192.168.1.168:554/sd	ו		
0	Network					

Figure 2 : SDI main Access Address

To alter / set the Streaming protocol go to the webpage click "SDI Main", and scroll down the page to find the "Disable" / "enable" setting, as shown in Figure 3.

When any protocol is enabled all the others will be disabled. Select the required option, RTSP has been indicated, then scroll down to click "Apply"



You can now check the streaming protocol by looking at the webpage "Access Address" as shown in Figure 2.





## 3.2. Is video seen by decoder?

If there is no valid HD-SDI input, or the SDI cable is not connected, then the encoder will send a black screen with white text, as shown in Figure 4. This is static image. Note your installed firmware version, as other versions do not show the "NO VIDEO" message, see comments in "1 Information and setup"

Figure 4 : video out when no input present or not detected





To confirm that you have "live" video and not cached / frozen image you can add **On Screen Text**. In the webpage select "Extended" then "Main OSD Setting", as shown in Figure 5. This OSD will appear and change as you change the text, this will prove you have a live decoded live

Figure 5 : Main OSD settings

	NTRICI	SDI Encoder	A	
Q	Status	Main OSD		
۲	Network		Choose File No file chosen	(Main osd logo named logo.bmp , 2nd osd logo named logo_ext.bmp)
0	SDI Main	update logo:	upload	
0	SDI 2nd	logo:	close ¥	
(Ö)	Extended	logo X:	100	[0-1920]
	Audio Setting	logo Y:	170	[0-1080]
	- Audio County	font X:	100	[0-1920]
	Main OSD Setting	fant Y:	100	[0-1080]
	2nd OSD Setting	Font size:	32	[8-72]
	Color Setting	alpha:	100	10-128j
	Image Setting	font color:	OXFFFFFFF	10-0xFFFFFF] example: R: 0xFFFF0000 G: 0xFF00FF00 B: 0xFF0000FF
	RTMP-HLS Setting	text:		Up to 255 character
	Smart Encoder		Apply	

#### Alter the settings:

text

Font size 72

user defined – in this example TEST

The output video will now be, as shown in Figure 6

#### Figure 6 : Output video with OSD





If the "font color:" is set to 0xFFF00FFF, the output video will have colour, as shown in Figure 7 Figure 7 : Output video with pink OSD





## 4. Appendix A : using software decoder VLC to decode video

VLC is a free to use media decoder. It can be downloaded from https://www.videolan.org/

To view the RTSP video, a software decoder like VLC can be used. Ensure the PC is on the same network as the ANT-255x and can access the ANT-255x's web interface.

### 4.1. Windows based usage

Open VLC -> Media -> "Open Network Stream" - see Figure 8

Figure 8 : VLC - Open Network Stream



In the pop up box, in the "Please enter a network URL:" box add the URL:

rtsp://192.168.1.168:554/sdi as shown in Figure 2

as show in Figure 9, below. The same URL can be added to most decoders to enable the stream to be viewed.

Figure 9 : VLC - RTSP URL

Notwork	Protocol		Ca Captare Dev	
Please e	nter a networ	k URL:		
rtsp://1	92.168.1.168	:554/sdi		~
mms:// rtsp://s http://	/mms.examples server.example. www.yourtube.	.com/stream.asx org:8080/test.sdp com/watch?v=gg64	4x	

#### 4.1.1. VLC - information about video

When the video is playing, to see information about the stream, from VLC top menu -> Tools -> "Codec Information" and popup windows will appear, as show in Figure 10, below.



The window contains the encoding algorithm (in the case h.265), resolution, frame rate and access URL. From the "Statistics" tab, the bitrate of the current video can be seen, as indicated in Figure 11, below



Figure 10 : VLC - Current Media Information - Codec Information

Figure 11 : VLC – Current Media Information - Statistics



### 4.2. MacOS based usage

Open video and from the top menu select File -> Open Network, as shown in Figure 12. A pop up windows appear, as show in Figure 13. Then clock "Open" and VLC will open and display the video.

Figure 12 : VLC MacOS "Open Network"

É	VLC media player	File Edit View I	Playback	Audio	Video	Subtitles	Window	Help
	e e e	Open File Advanced Open File Open Disc	第0 公第0 第日	media	player			Q Search
	Playlist	Open Network	96 N					
	🖻 Media Librar	Open Capture Device	. ⊮ R					
	MY COMPUTER	Open Recent	>					
	H My Videos	Close Window	€ W			/	~	
Wires	III My Music	Reveal in Finder	☆ 洸 R				1	
	My Pictures	Convert / Stream	☆ 靴 S			ļļļ	t i	
	LOCAL NETWORK	Save Playlist	¥S				/	
7	🛞 Bonjour Netw	ork Discov						
	v 🚯 Universal Plug	g'n'Play			Dr	op media	here	
Tanite the	Network stream	ams (SAP)				Open medi	a	
	Podcasts							
keyboa	🕼 🏟 Jamendo Sele	ections						
	🖗 Icecast Radio	Directory						
	<b>■ → → ≡</b>							00:00 4

Figure 13 : MacOS - input URL

	Open	Source			
	File Disc N	letwork	Capture		
URL rtsp://192.168.1.16	68:554/sdi				
To Open a usual network field above. If yo	stream (HTTP, RTSP, u want to open a RTP	RTMP, MM or UDP str	S, FTP, etc.) eam, press t	, just enter the	e URL in the ow.
	Open RTP	/UDP Stre	am		
Media Resource Locator (MR	L)				
Stream output:					Settings
				Cancel	Open

#### 4.2.1.VLC - information about video

When the video is playing, to see information about the stream, from VLC top menu -> Window - > "Media Information", see Figure 14 and popup windows will appear, as show in Figure 15, below. The window contains the encoding algorithm (in the case h.265), resolution and frame



rate. From the "Statistics" tab, the bitrate of the current video can be seen, as indicated in Figure 16, below.

🗯 VLC media player File Edit View	Playback Audio Video Subtitles	Window Heip	
	rtsp://192.168.1.168	Minimize Minimise All Zoom Move Window to Left Side of Screen Move Window to Right Side of Screen	35M 035 Z
		Show Previous Tab Show Next Tab Move Tab to New Window Merge All Windows	
		Main Window	THC
· ·		Media Information	<b>ж</b> т
		Video Effects Audio Effects Track Synchronization	<b>※</b> E 介業E
		Bookmarks	<b>#8</b>
eyboard		Errors and Warnings Messages	び第M 企業M
		Bring All to Front	
Sportse			
≪ ॥ → ■ = 0			** 00:00 *

#### Figure 14 : MacOS - Media Information



8			Media Inf	ormation		
		General	Codec D	)etails	Statistics	
~ s	tream 0					
	Codec			MPEG-H	H Part2/HEVC (H.265) (hevc)	
	Туре			Video		
	Video resolution			1920x10	080	
	Buffer dimensions			1920x1088		
	Frame rate			30		
	Decoded format			Planar 4	4:2:0 YUV	
	Orientation			Top left	t	
	Color primaries			ITU-R B	3T.709	
	Color transfer function			ITU-R BT.709		
	Color space			ITU-R B	3T.709 Range	
	Chroma location			Left		
~ s	tream 1					
	Codec			MPEG A	AAC Audio (mp4a)	
	Туре			Audio		
e	Channels			Stereo		
	Sample rate			48000	Hz	
	Bits per sample			32		



#### Figure 16: MacOS - statistics

8	Media I	Media Information			
	General Codeo	Details Statistics			
Input					
Read at media Input bitrate Demuxed Stream bitrate			0 KiB 0 kb/s 34674 KiB 1709 kb/s		
Video		Audio			
Decoded blocks Displayed frames Lost frames	10,191 5,036 25	Decoded blocks Played buffers Lost buffers	15,971 7,985 0		