

ANT-2551 / ANT-2554 help guide

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Document info

For further help and advice please contact Antrica on: Email: support@antrica.com

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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.

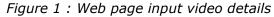
For further information please see the following link as a starting point <u>https://www.aja.com/pdf/qa/Dual_Link_and_3G_Overview.pdf</u>

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 Encode	er A			
🖵 Status	Access address	Video parameters	Audio parameters	Hardware status	Preview
SDI status SDI 2nd status		size: 1920*1080i it 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 1920×1080 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

A1		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/sdi			
0	Network SDI Main					

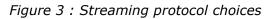
Figure 2 : SDI main Access Address

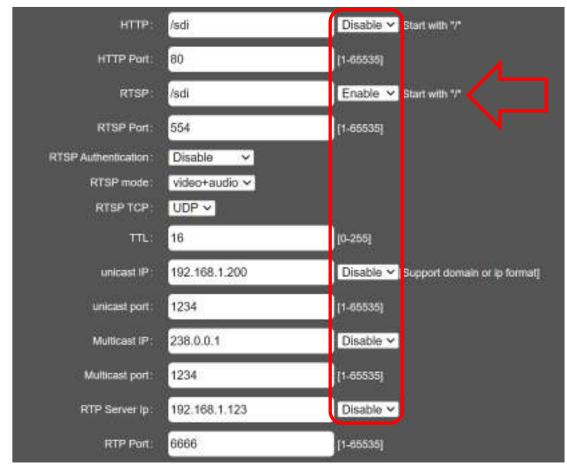
To alter / set the Streaming protocol go to the webpage click "SDI Main", and scroll down the page to find the "Disable" / "enable" setting, as shown in Figure 3.

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

٩N	ITRICA	SDI Frieder	*	
0	978 A	Main OSD		
	Nebatek		Choose File. No lie cho	een (Main ood logs named logs.tmp , 2nn ond logs named logs_ext.tmp)
8	50) Main	updata loga	upload	
-	601 2nd	topu.	olose 🛩	
101	Ditensed	logo X.	100	85-taxif
108see	Aucto Setting	ingo Y	170	(S-1080)
		forst X.	100	(5-1020)
	Men (ISD Selling	hard Yr.	100	p-1080
	2nd OSD Setting	Fight date:	32	(4-72)
	Galar Setting	a phe	100	(5-124)
-	Image Setting	font color:	COFFFFFFF	0-0xFFFFFFJ example: R. 0xFFFF0000-0: 0xFF00FF00 B. 0xFF0000FF
	RTMR+HLS Setting	tist		Lip to 255 character
	Smart Encoder		Аррну	

Alter the settings:

Font size 72 text 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

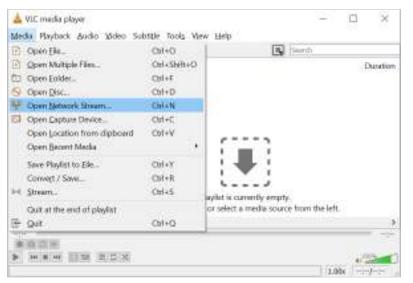
VLC is a free to use media decoder. It can be downloaded from https://www.videolan.org/

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

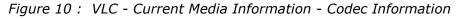
Network	Protocol				
Please e	nter a networ	k URL:			
rtsp://1	92.168.1.168	:554/sdi			~
rtsp://s	server.example.	.com/stream.asx org:8080/test.sdp com/watch?v=gg64	4x		

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



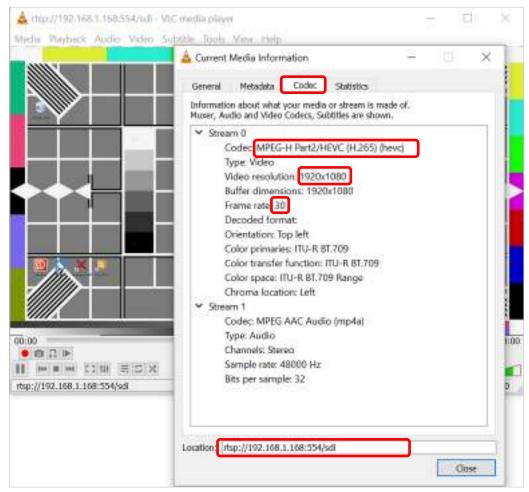
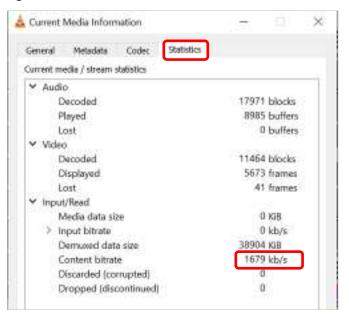


Figure 11 : VLC – Current Media Information - Statistics



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"

• • •	Open File Advanced Open File Open Disc	0.00 0.00	media	player	_	_	Q Seech
E Playint	Open Network_	XN					
2 Media Librar	Open Capture Device	N.R.					
WE COMPUTER	Open Recent	>					
H My Videos	Close Window	- DOW			/	~	
🕫 My Music	Reveal in Finder	©XR				- <u>-</u>	
My Pictures	Convert / Stream	0365			44		
LOCAL NETWORK	Save Playlist	X S		3	\sim	1	
Bonjour Netwo	irk Discov		e				
Oniversal Plug	'n'Play			Dr	op media	here	
Network stream	me (SAP)				Open med	a	
Podcasts							
🖗 Jamendo Sele	ctions						
P loecast Radio I	Directory						

Figure 13 : MacOS - input URL

		Op	en Source		
	File	Disc	Network	Capture	
URL rtsp://192.	168.1.168:554	/sdi]		
To Open a usual (field abo	urtsiork stream ve. If you want t				
		Open R	TP/UDP Str	eam	
		Open R	TP/UDP Str	eam	
Aedia Resource Loca	tor (MRL)	Open R	TP/UDP Str	eam	
vledia Resource Loca Stream output:	dor (MRL)	Open R	RTP/UDP Str	eam	Settings

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.

	 Aminizo Aminise Al	用於: 11
	Com Ave Window to Left Side of Screen Ave Window to Right Side of Screen	
	ition Provinsia Tale In ter Novel Tale Alwa Tala III Prev Windows Annas All Windows	
	dain Window Nasilat	Val.
◆◆┽┼┼┼	Andra Internation Adeo Effects Auto Effects	
	Pack Synchronization sociamerity	21
	Arcanges	

Figure 14 : MacOS - Media Information

Figure 15 : MacOS - Codec Details

tream 0	
Codec	MPEG-H Part2/HEVC (H.265) (hevc)
Type	Video
Video resolution	1920×1080
Buffer dimensions	1920x1088
Frame rate	30
Decoded format	Planar 4:2:0 YUV
Orientation	Top left
Color primaries	ITU-R BT.709
Color transfer function	ITU-R BT.709
Color space	ITU-R BT.709 Range
Chroma location	Left
tream 1	
Codec	MPEG AAC Audio (mp4a)
Туре	Audio
Channels	Stereo
Sample rate	48000 Hz
Bits per sample	32



Figure 16: MacOS - statistics

		Media Ir	formation	
	General	Codec	Details Helmis k	
nput				
Read at media Input bitrate Demuxed				0 KiB 0 kb/s 34674 KiB
Stream bitrate	_	_		1709 kb/s
/ideo			Audio	
Decoded blocks Displayed frames Lost frames		10,191 5,036 25	Decoded blocks Played butters Lost butters	15,971 7,985 0